

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation $f(x) = \int_0^x f(t) dt$. It is shown that $f(x)$ is a continuous function and that it satisfies the functional equation $f(x+y) = f(x) + f(y)$. The function $f(x)$ is also shown to be differentiable and its derivative is found to be $f'(x) = f(x)$. This implies that $f(x) = Ce^x$ for some constant C . The value of C is determined by the initial condition $f(0) = 1$, which gives $C = 1$. Therefore, the function $f(x)$ is $f(x) = e^x$.

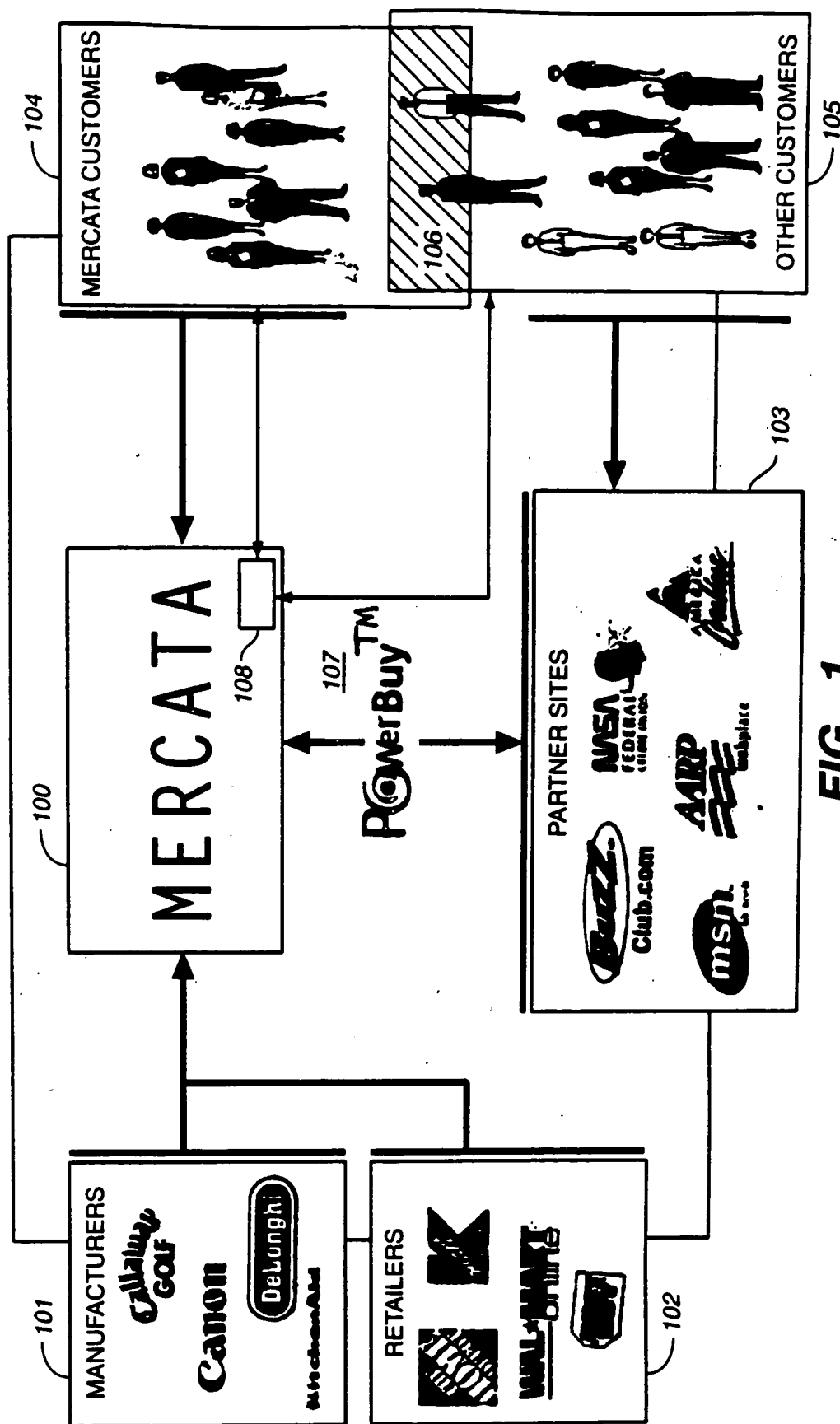


FIG. 1

+

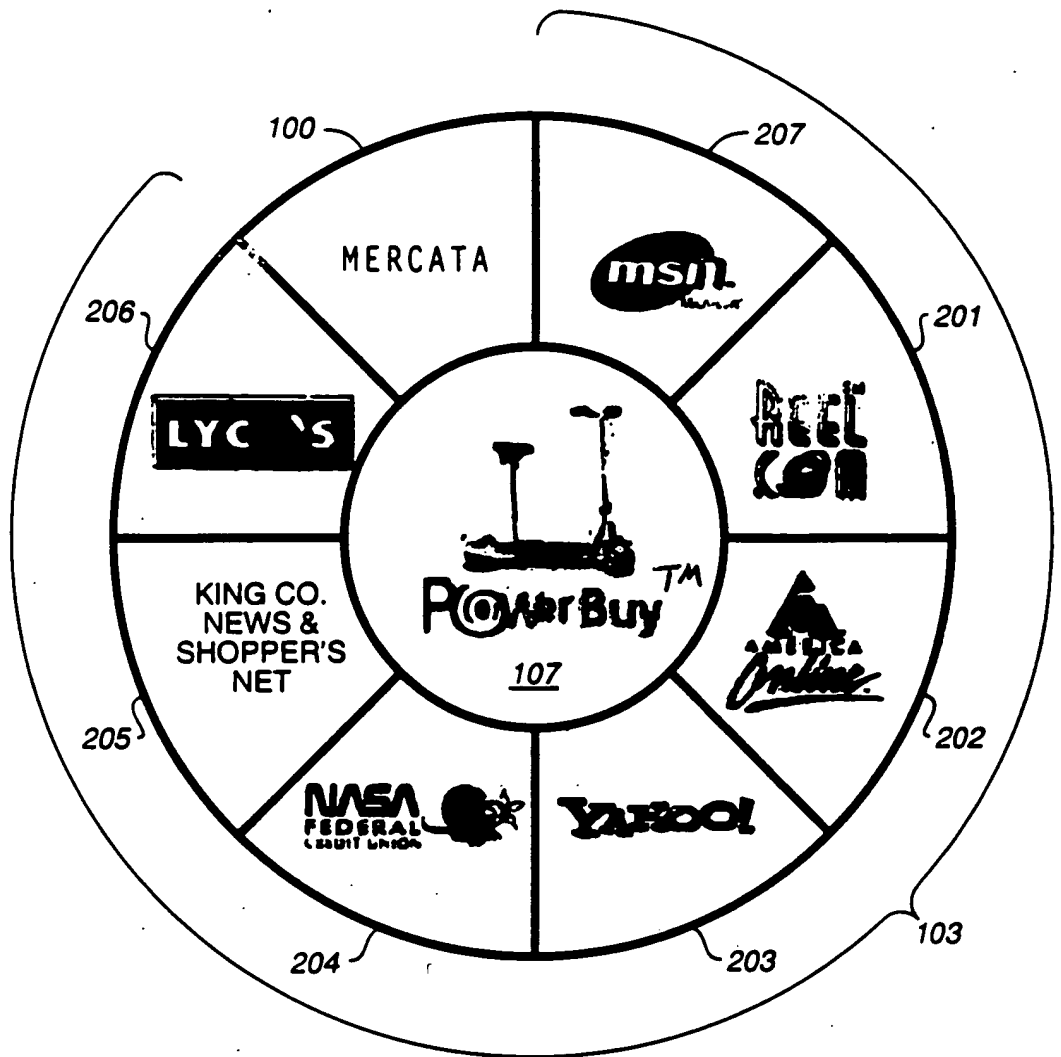


FIG._2

09681378 101000

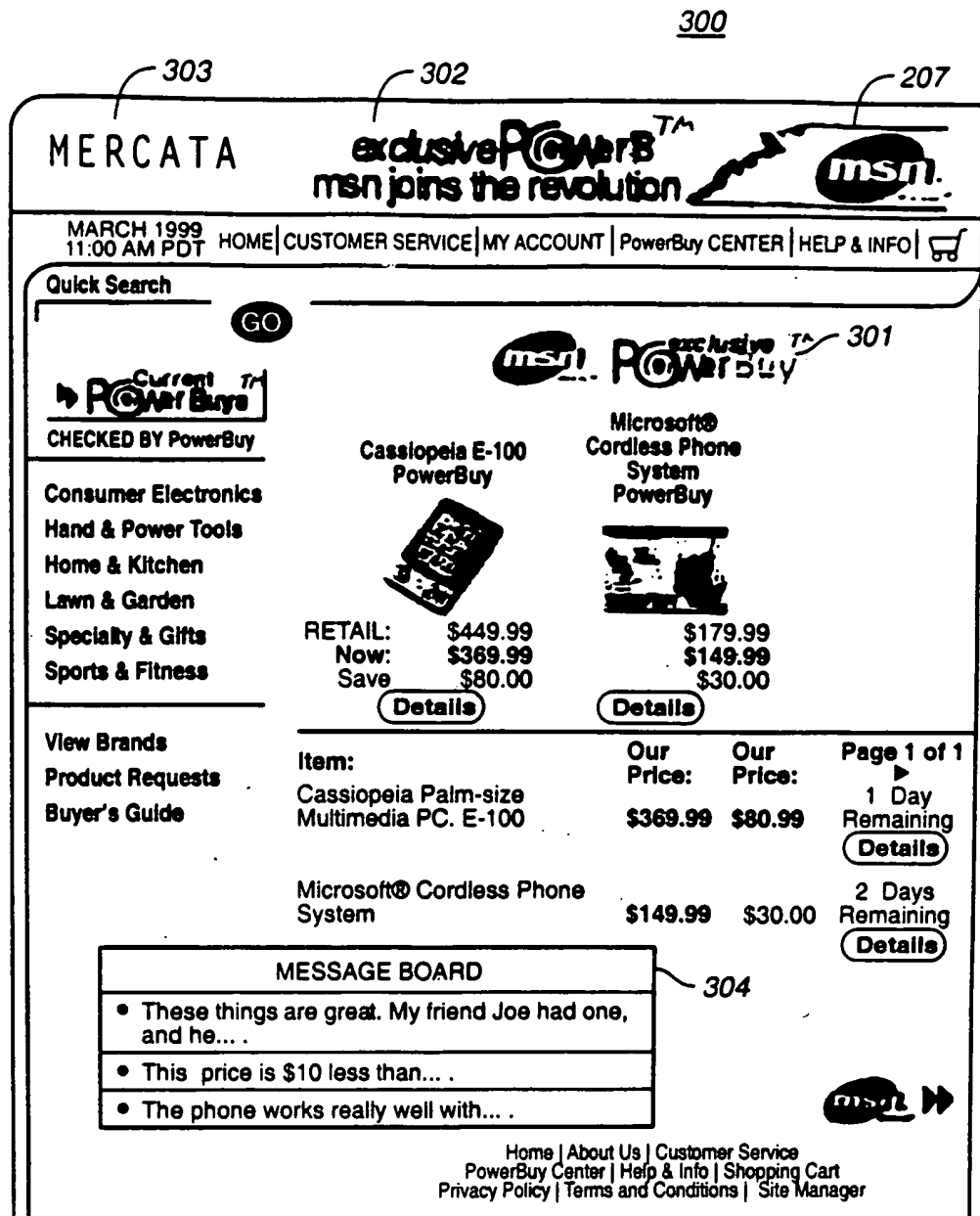


FIG. 3

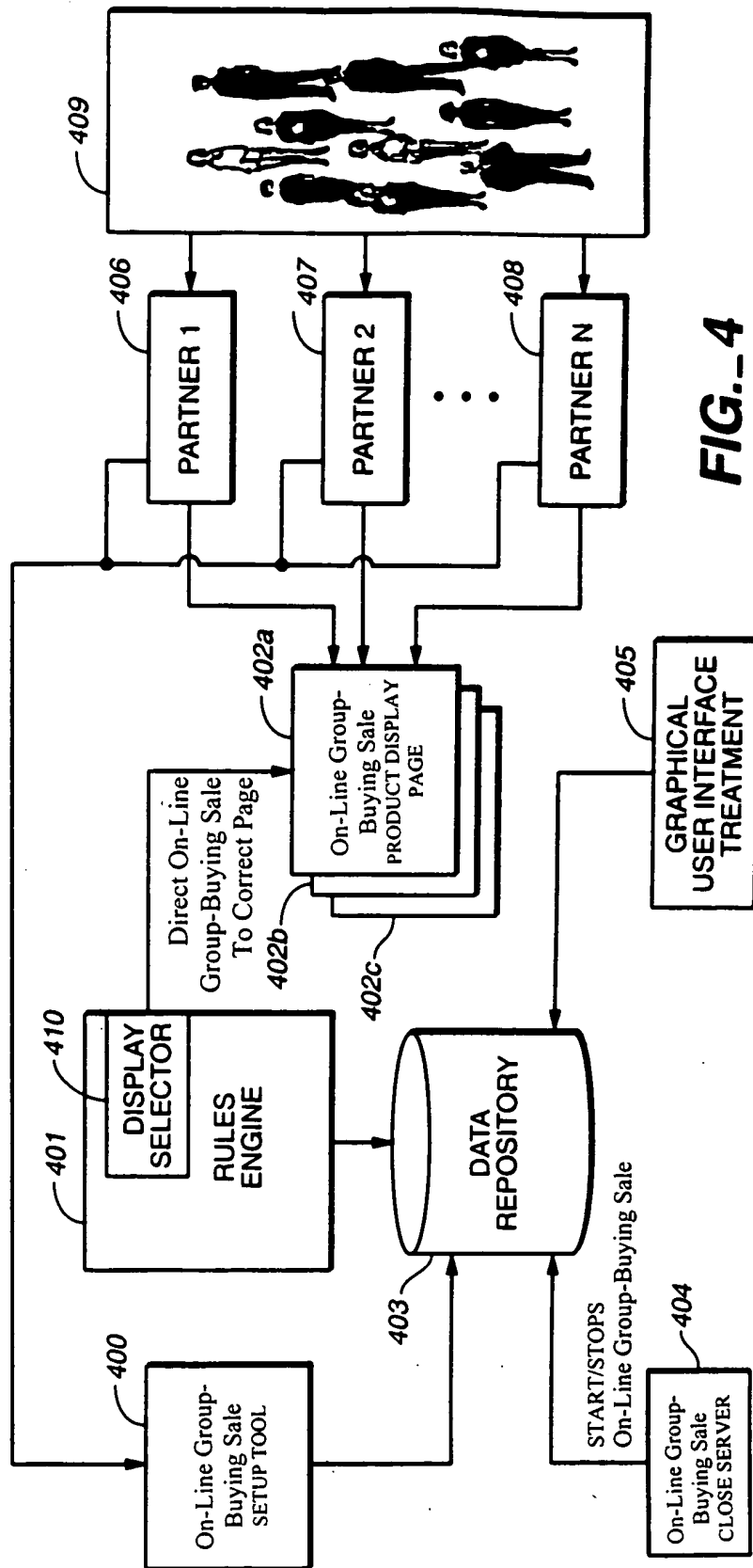


FIG. 4

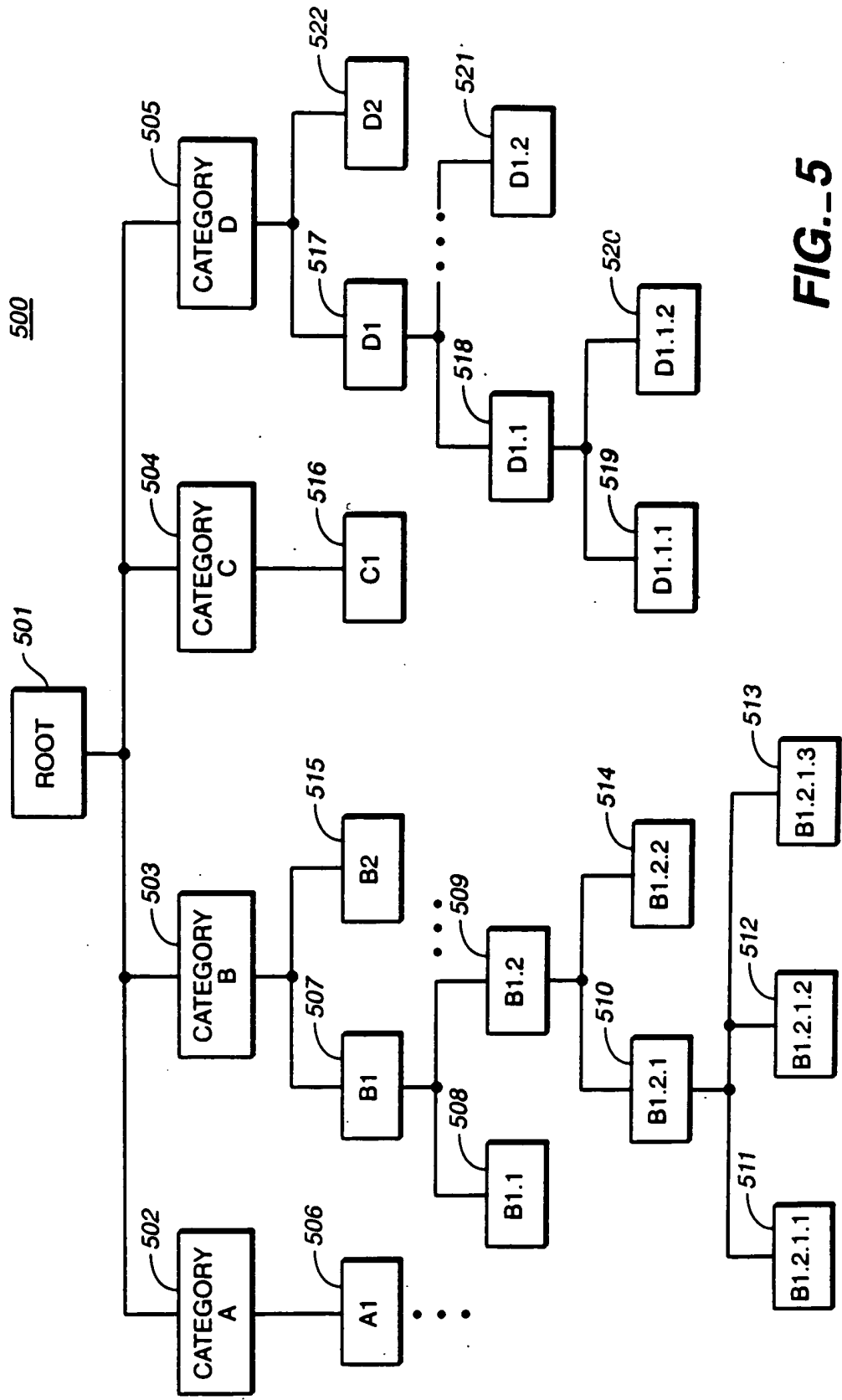


FIG._5

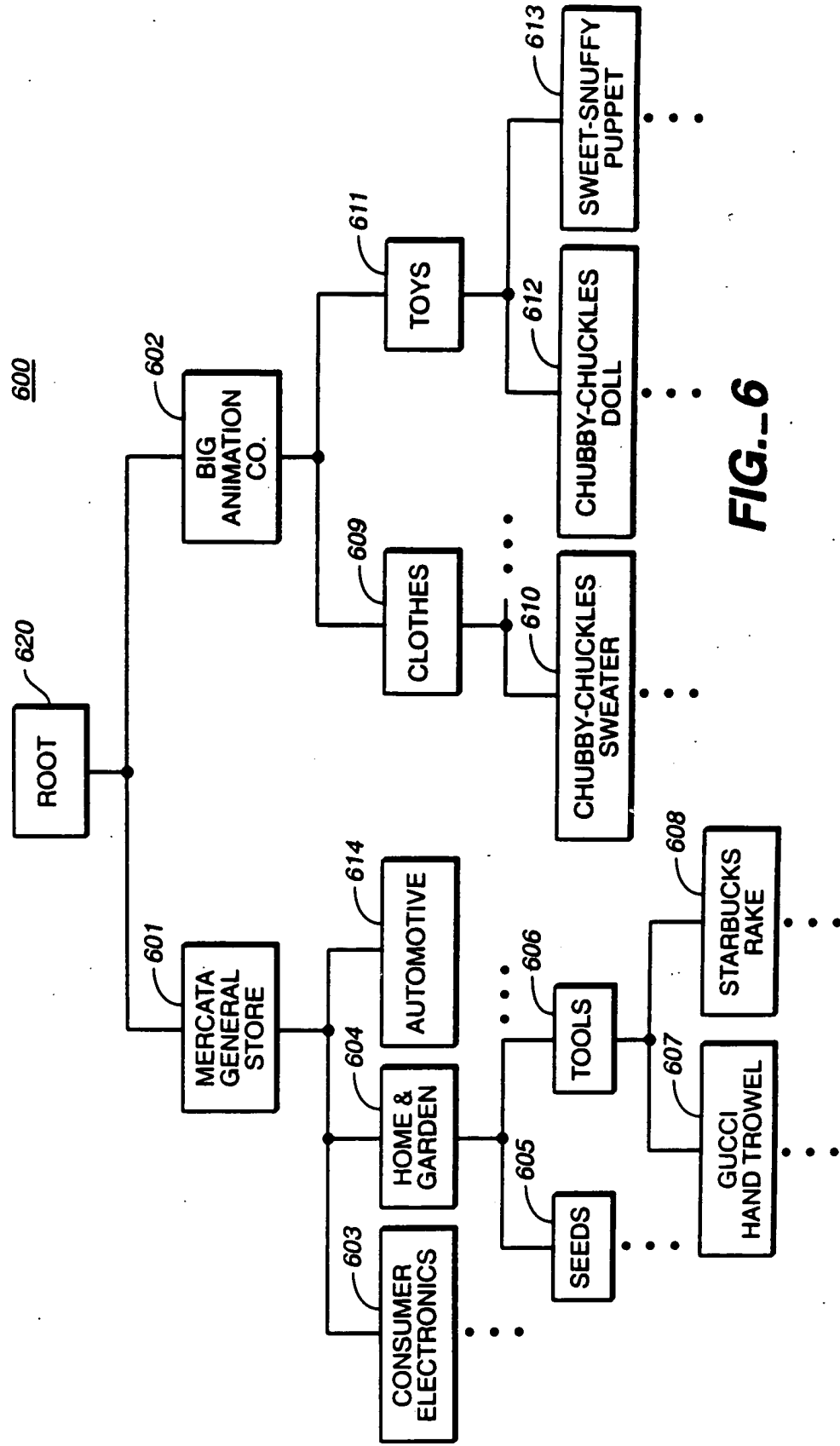


FIG. 6

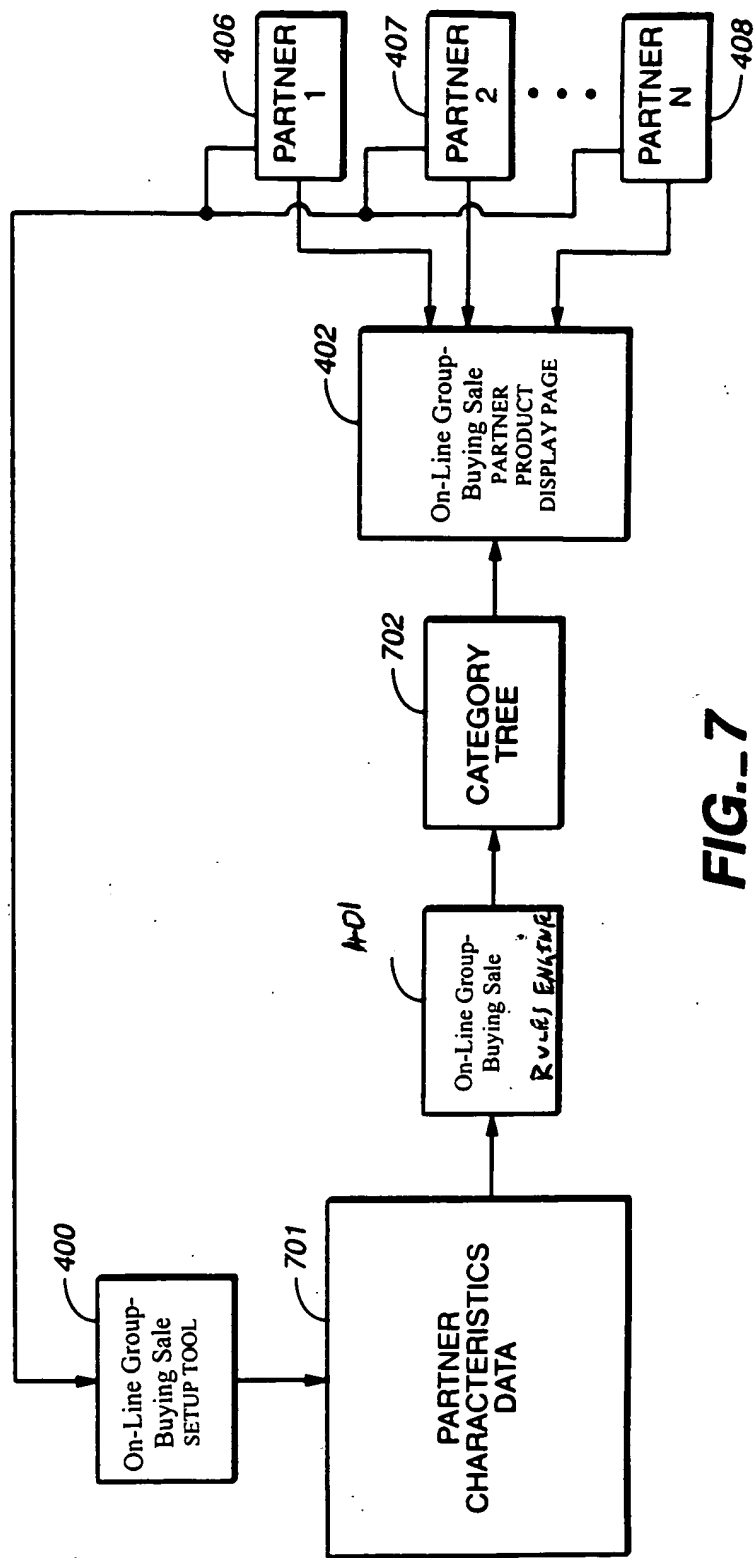


FIG. 7

NAME <u>801</u>		ADDRESS <u>802</u>	
GOODS FOR SALE <u>803</u>		MAX. QUANTITY <u>804</u>	
DESCRIPTION OF GOODS <u>805</u>			
INITIAL PRICE <u>806</u>		MINIMUM PRICE <u>807</u>	
MIN. SALE QUANTITY <u>808</u>		ORDER QUANTITY LIMIT <u>809</u>	
OFFER REJECT THRESHOLD <u>810</u>		PRICING SCHEME <u>811</u>	
COST CURVE <u>812</u>	IGNORE SCHEME <u>813</u>		WINDOW PRICE <u>814</u>
BONUS PROGRAM - SELLER <u>815</u>		BONUS PROGRAM - BUYER <u>816</u>	
PRODUCT DELIVERY INFORMATION <u>817</u>		ABSTRACT FOR PARTNER SITES <u>818</u>	
SELLER SECURITY / CERTIFICATION DATA <u>819</u>			

FIG. 8

SECRET

900

TROOP 36 - BELLEVUE <u>901</u>		TROOP36@MSN.COM <u>902</u>	
COOKIES <u>903</u>		200 BOXES <u>904</u>	
THIN MINT GIRL SCOUT COOKIES - PLEASE HELP OUR TROOP AND FIGHT MUSCULAR DYSTROPHY, TOO! WE DONATE \$1 TO MS FOR EACH BOX SOLD. <u>905</u>			
\$5.00 <u>906</u>		\$3.00 <u>907</u>	
NONE <u>908</u>		NONE <u>909</u>	
\$3.00 <u>910</u>		PowerBuy™ AUTOMATIC SHOW ME <u>911a</u> <u>911</u>	
PowerBuy™ AUTOMATIC SHOW ME <u>912a</u> <u>912</u>	PowerBuy™ AUTOMATIC SHOW ME <u>913a</u> <u>913</u>	PowerBuy™ SHOW ME <u>914a</u> <u>914</u>	
MERCATA BONUS BUCKS <u>915</u>		NONE <u>916</u>	
SHIPPED VIA UPS AT 50¢ / BOX <u>917</u>		KING COUNTY; SNOHOMISH CO.; GIRL SCOUTS; CHARITY; YOUTH; FOOD; <u>918</u>	
WELLS FARGO BANK; MS. BONNIE JONES <u>919</u>			

FIG. 9

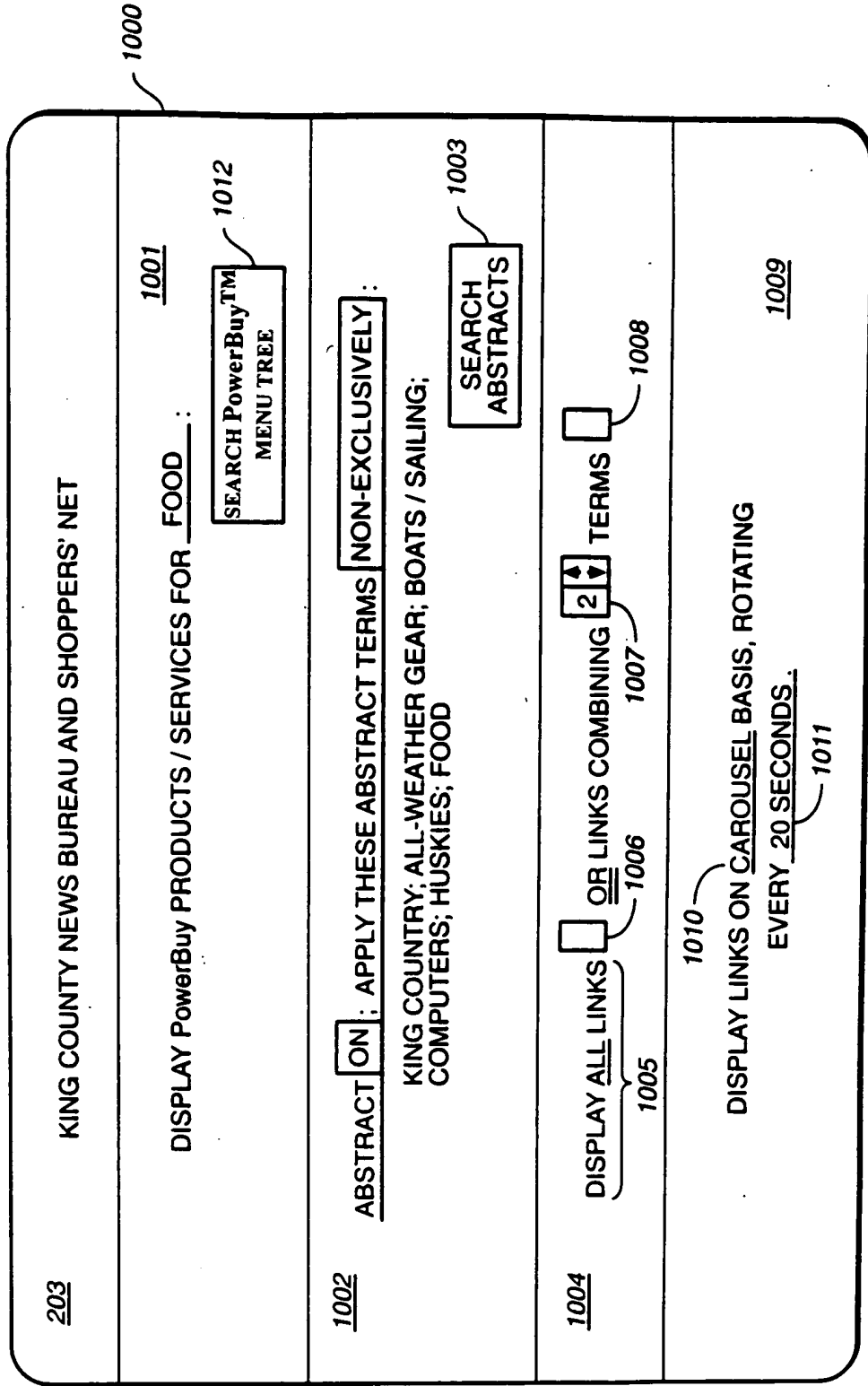


FIG.. 10

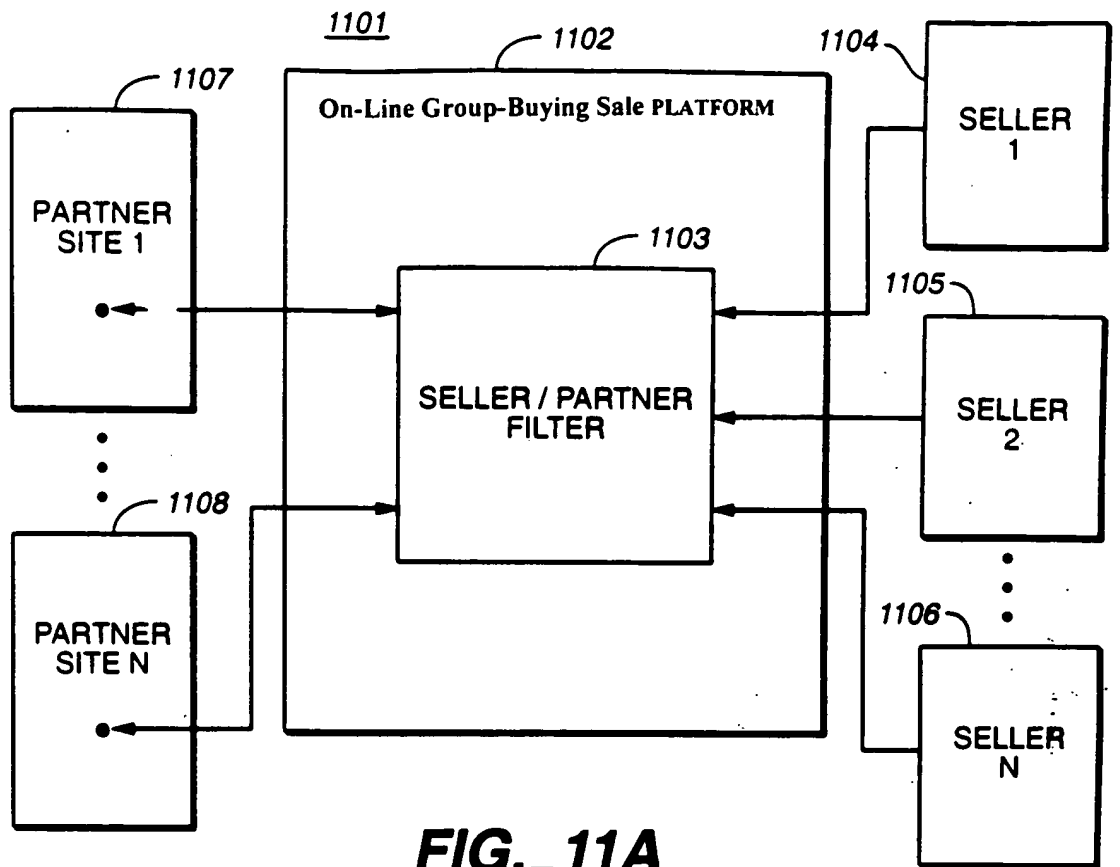


FIG._11A

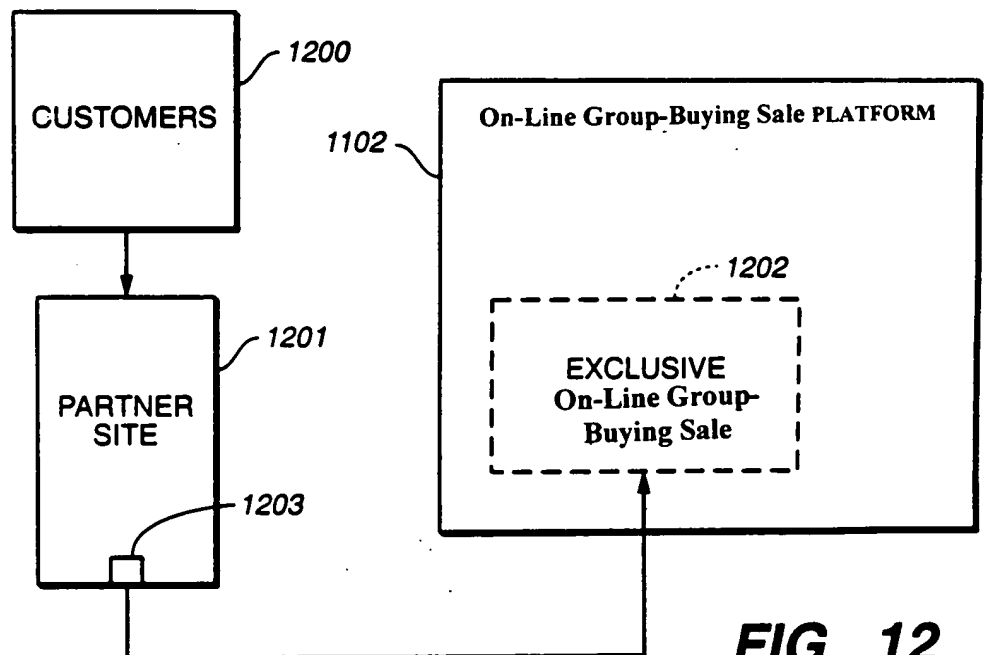
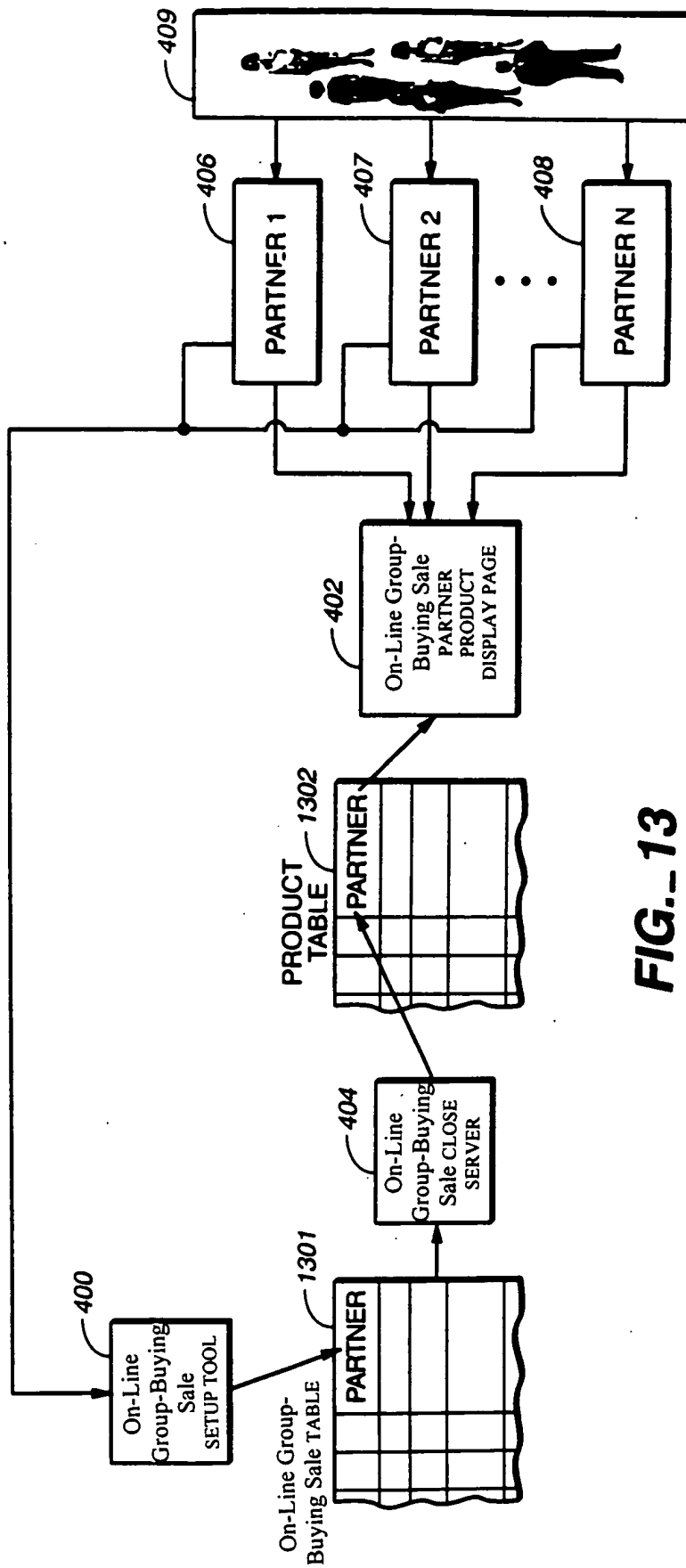
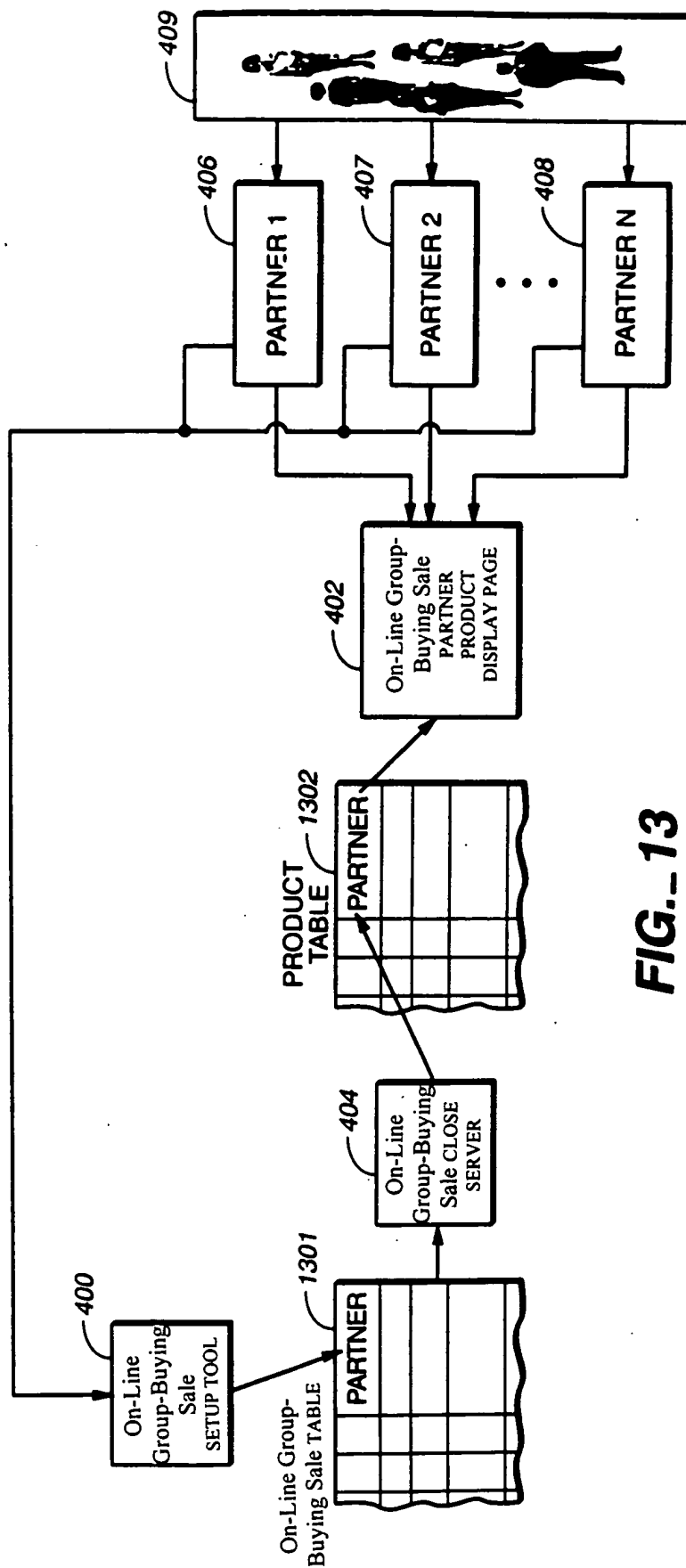


FIG._12

056672-101000



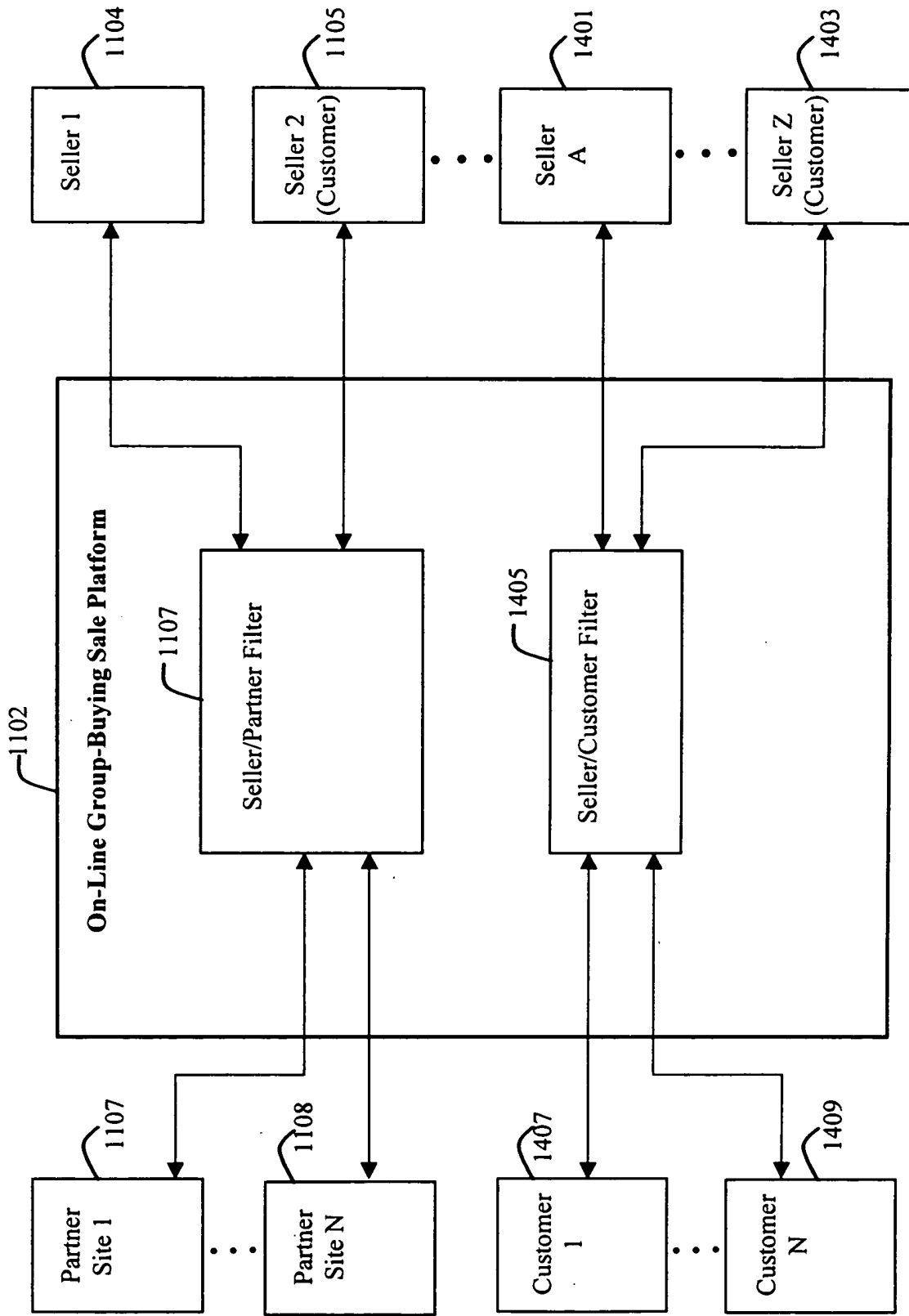


FIG.-14

1102

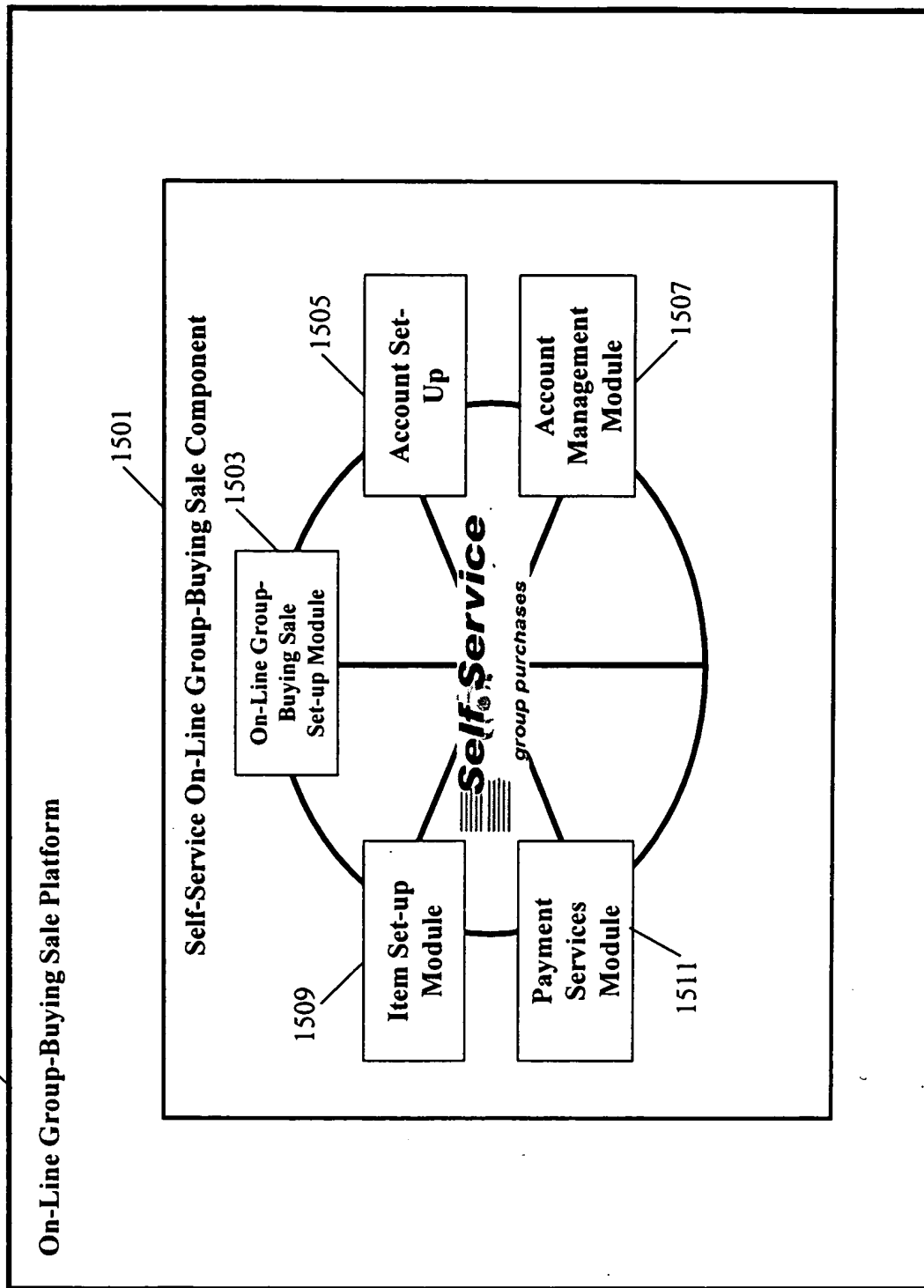


FIG.-15

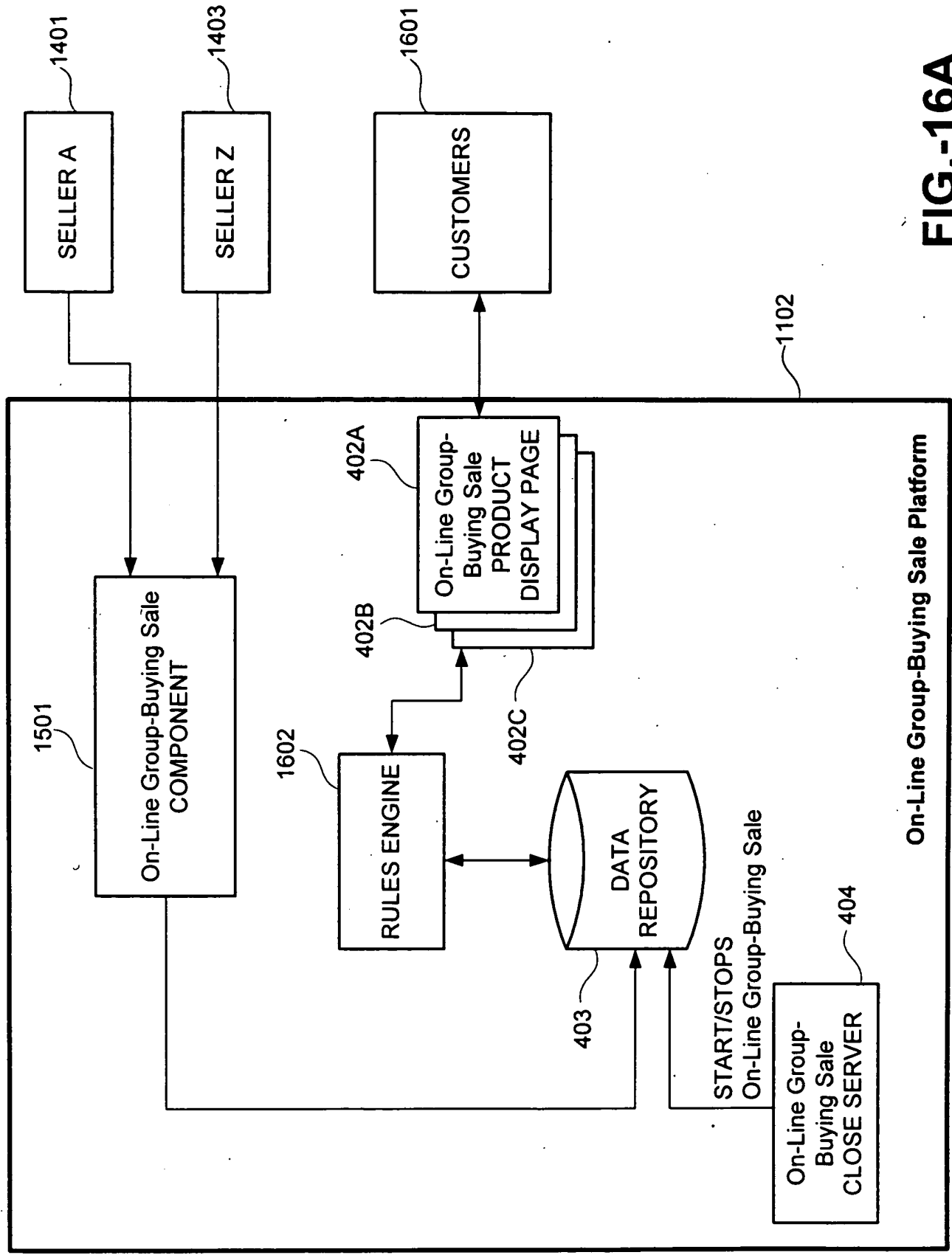


FIG.-16A

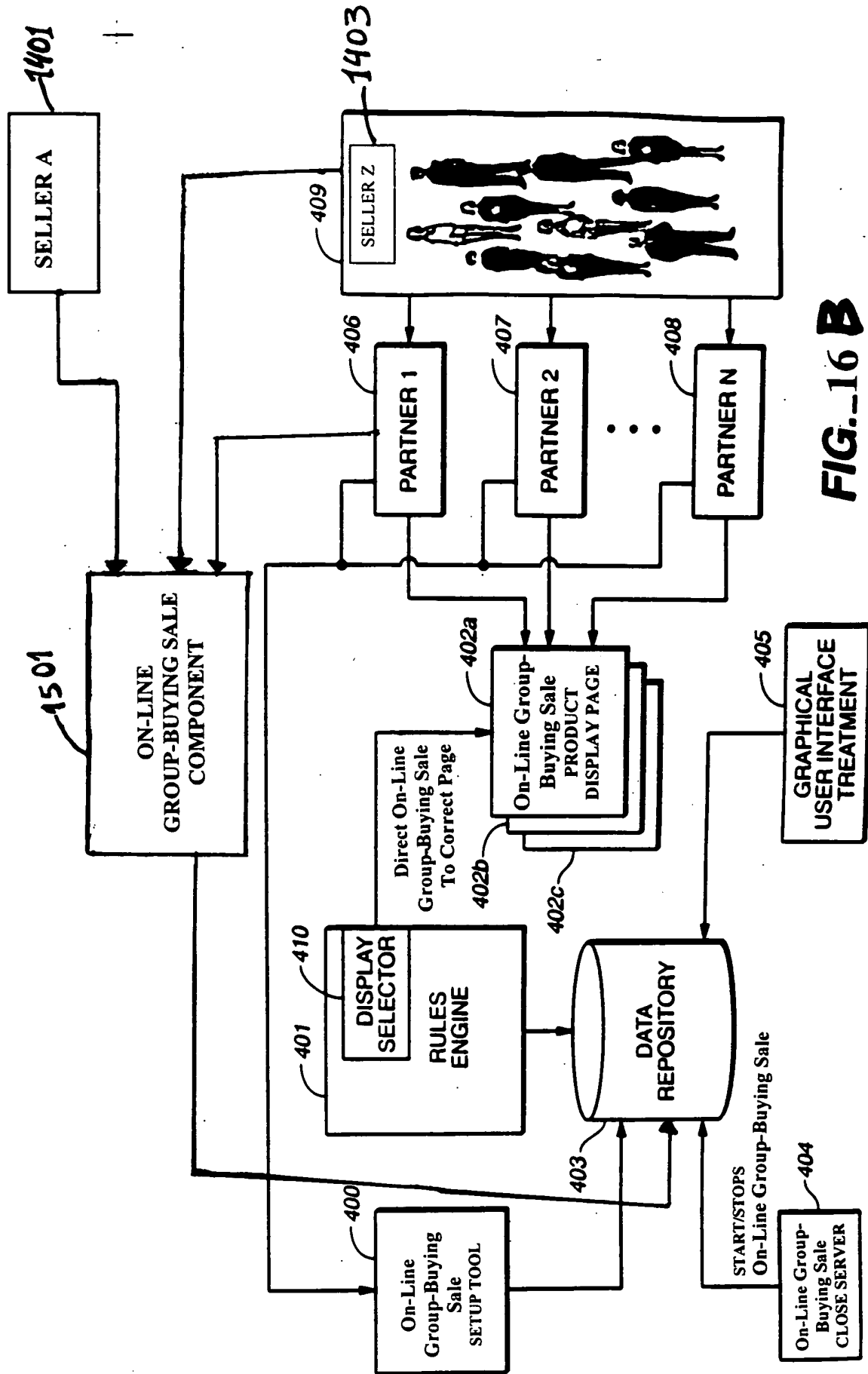


FIG. 16 B

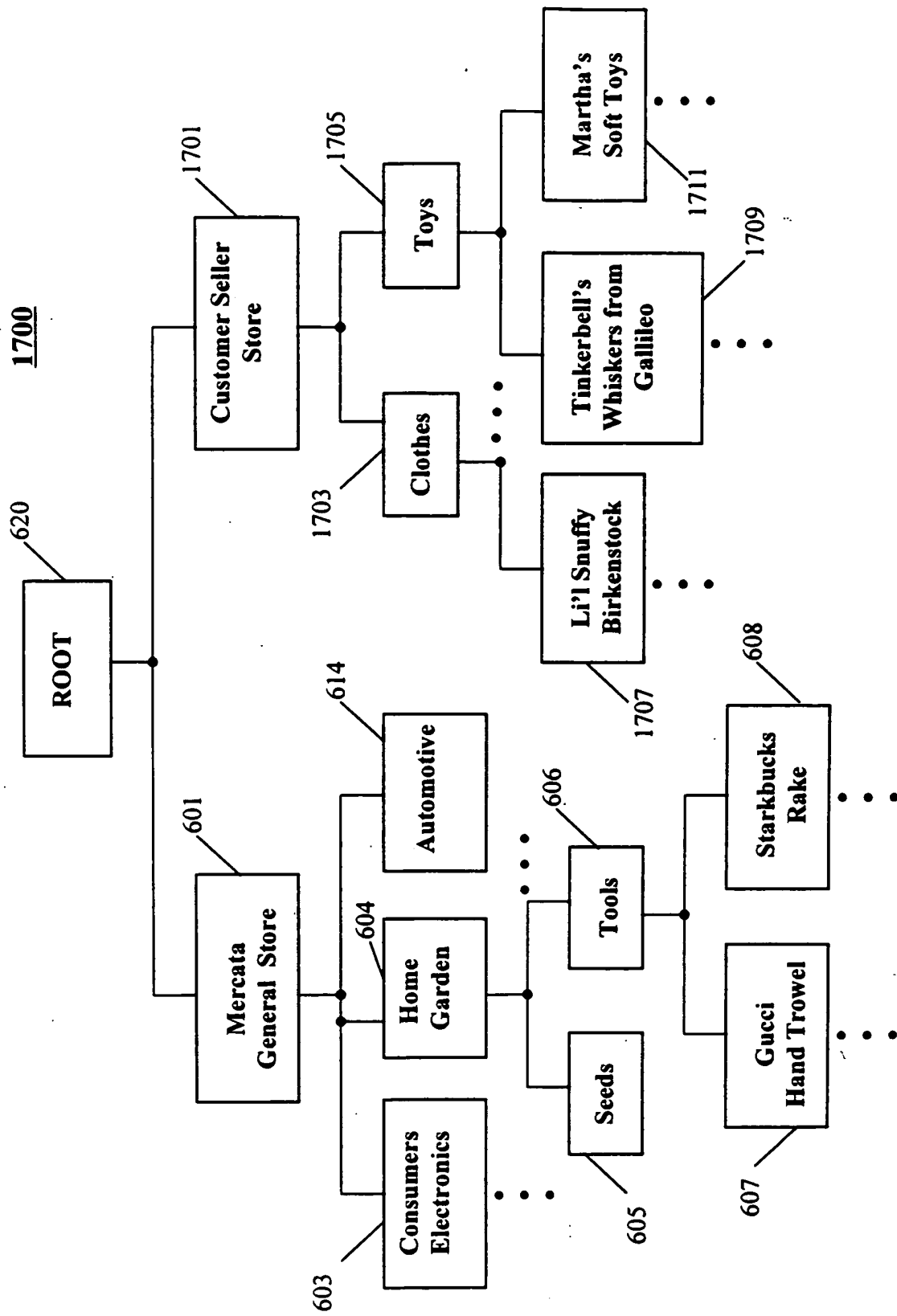


FIG.-17

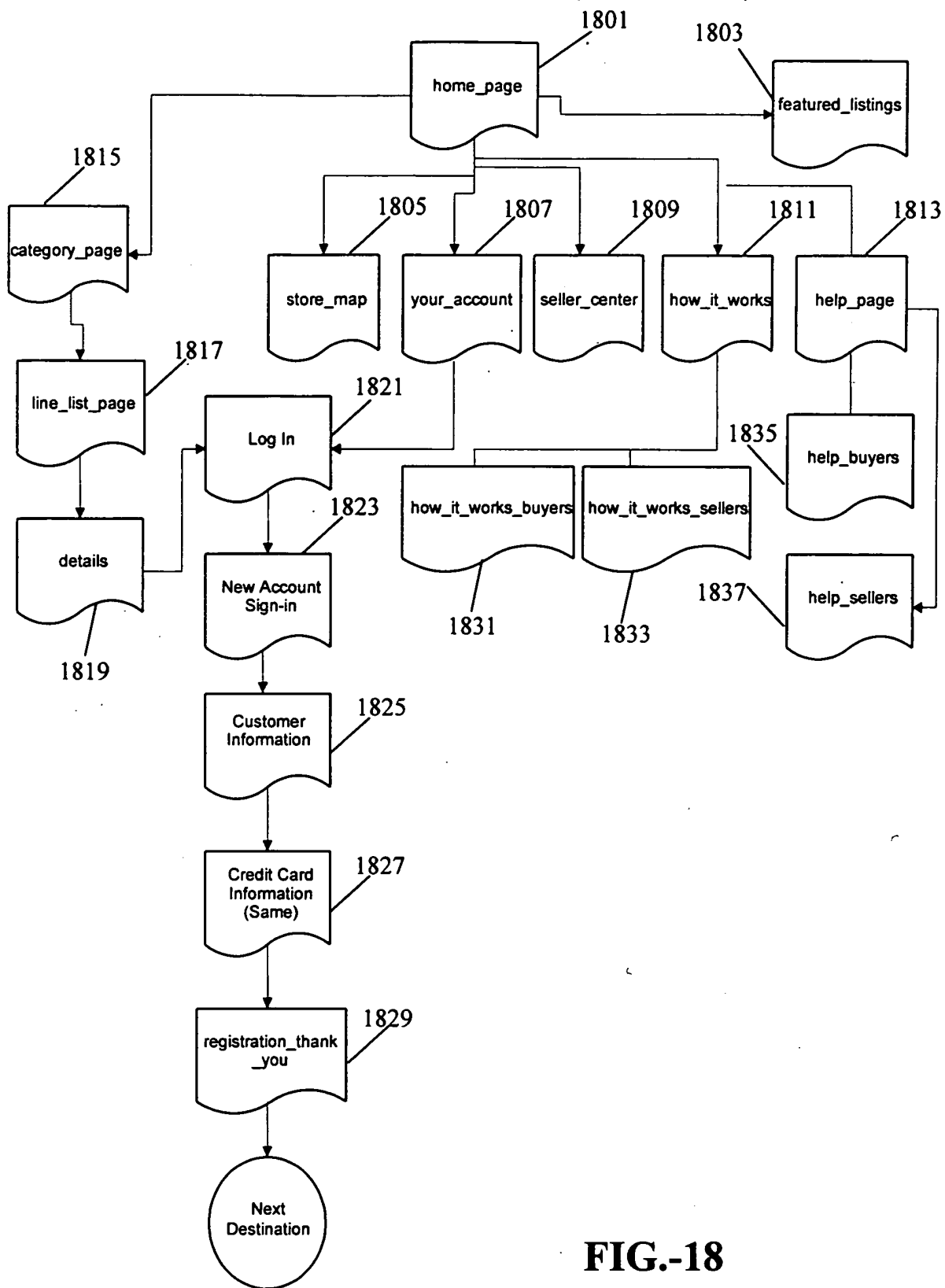


FIG.-18

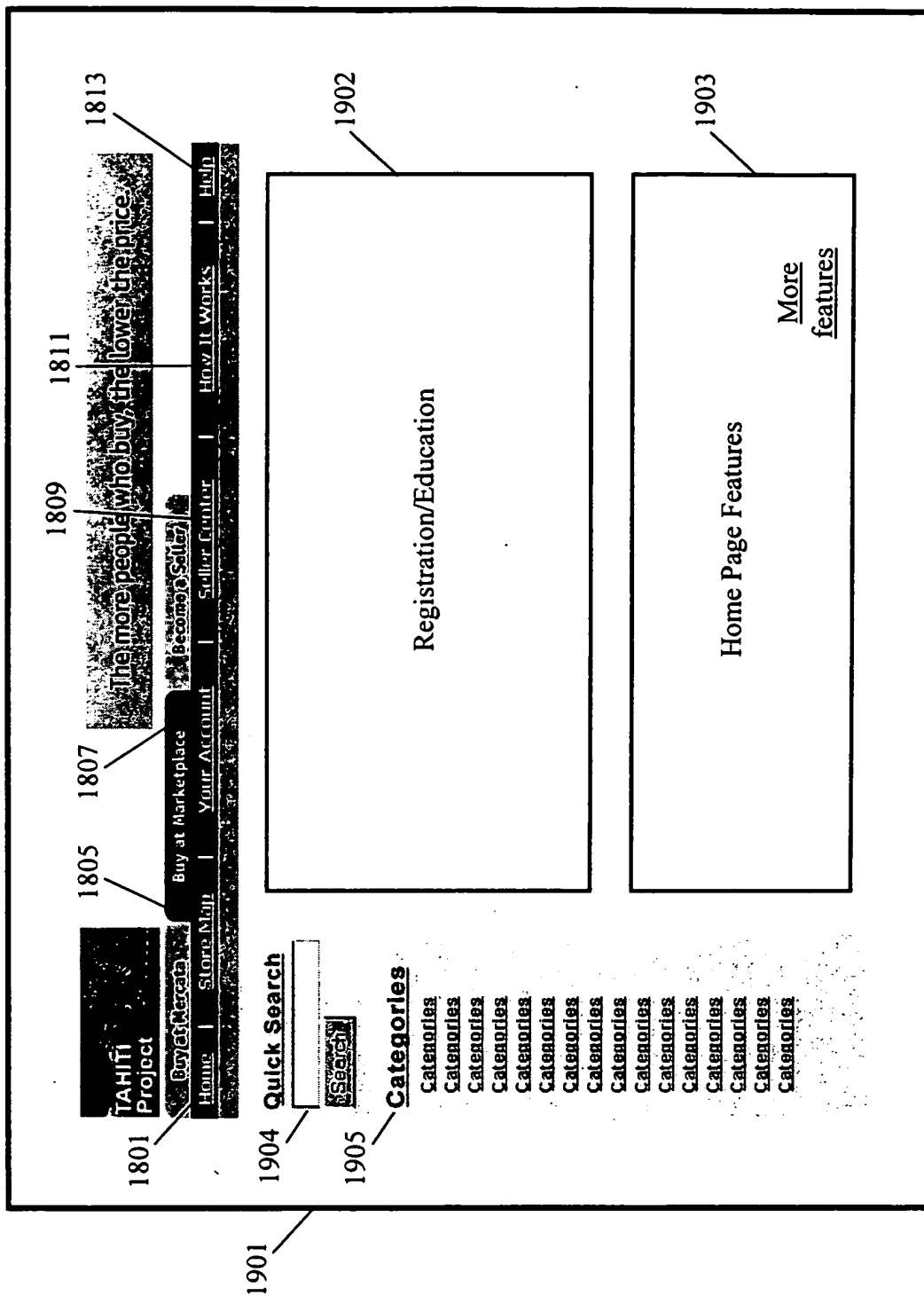


FIG.-19

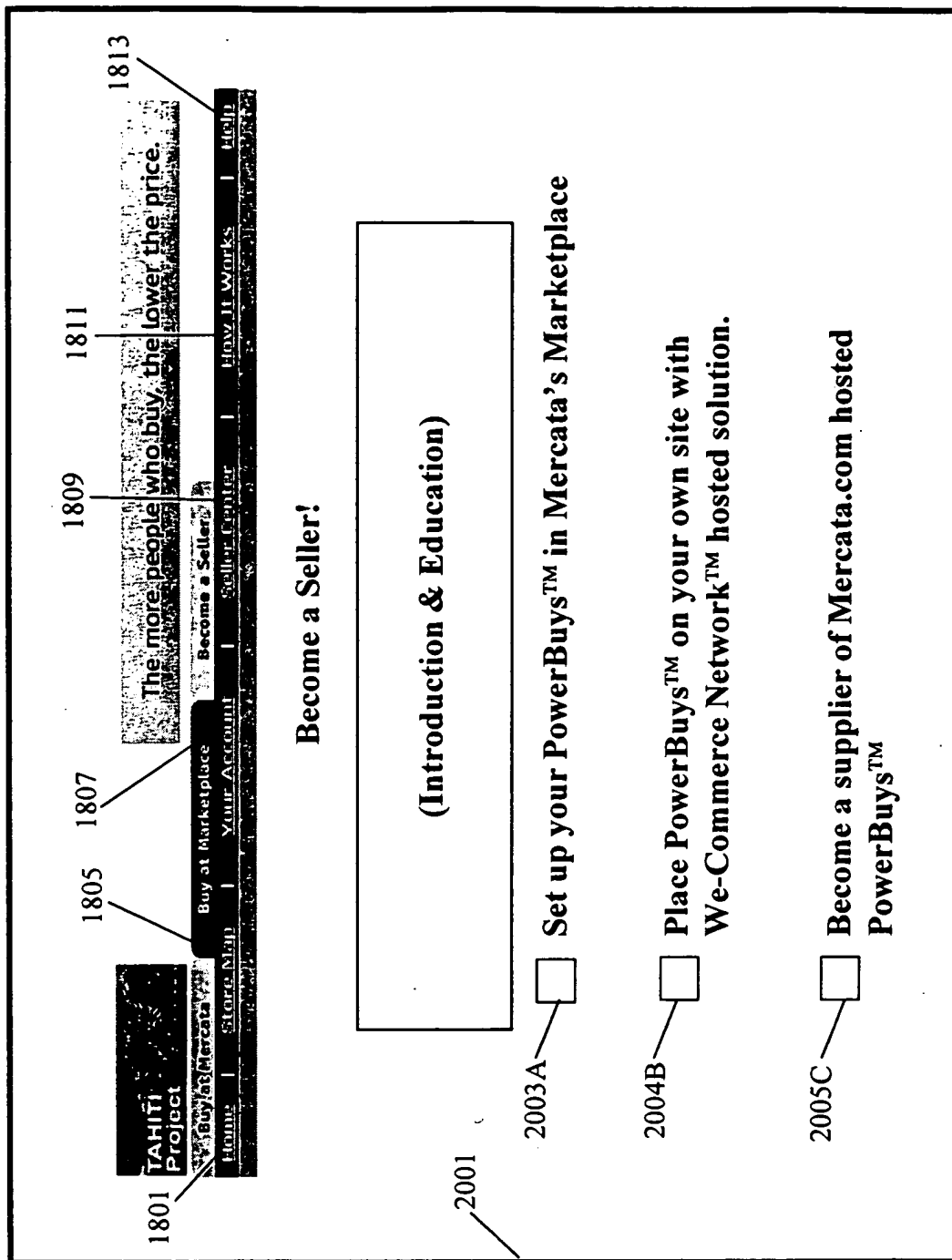


FIG.-20

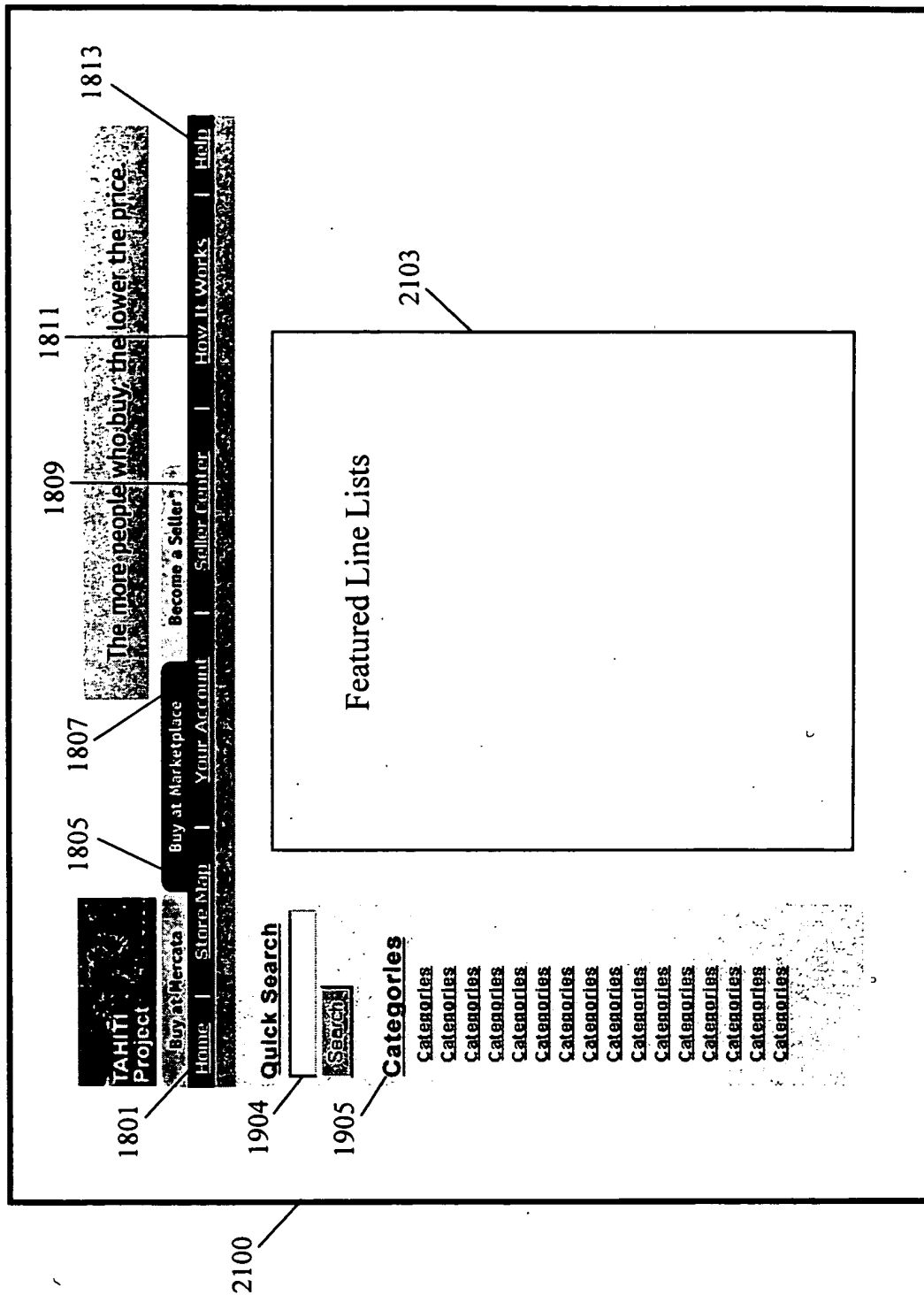


FIG.-21

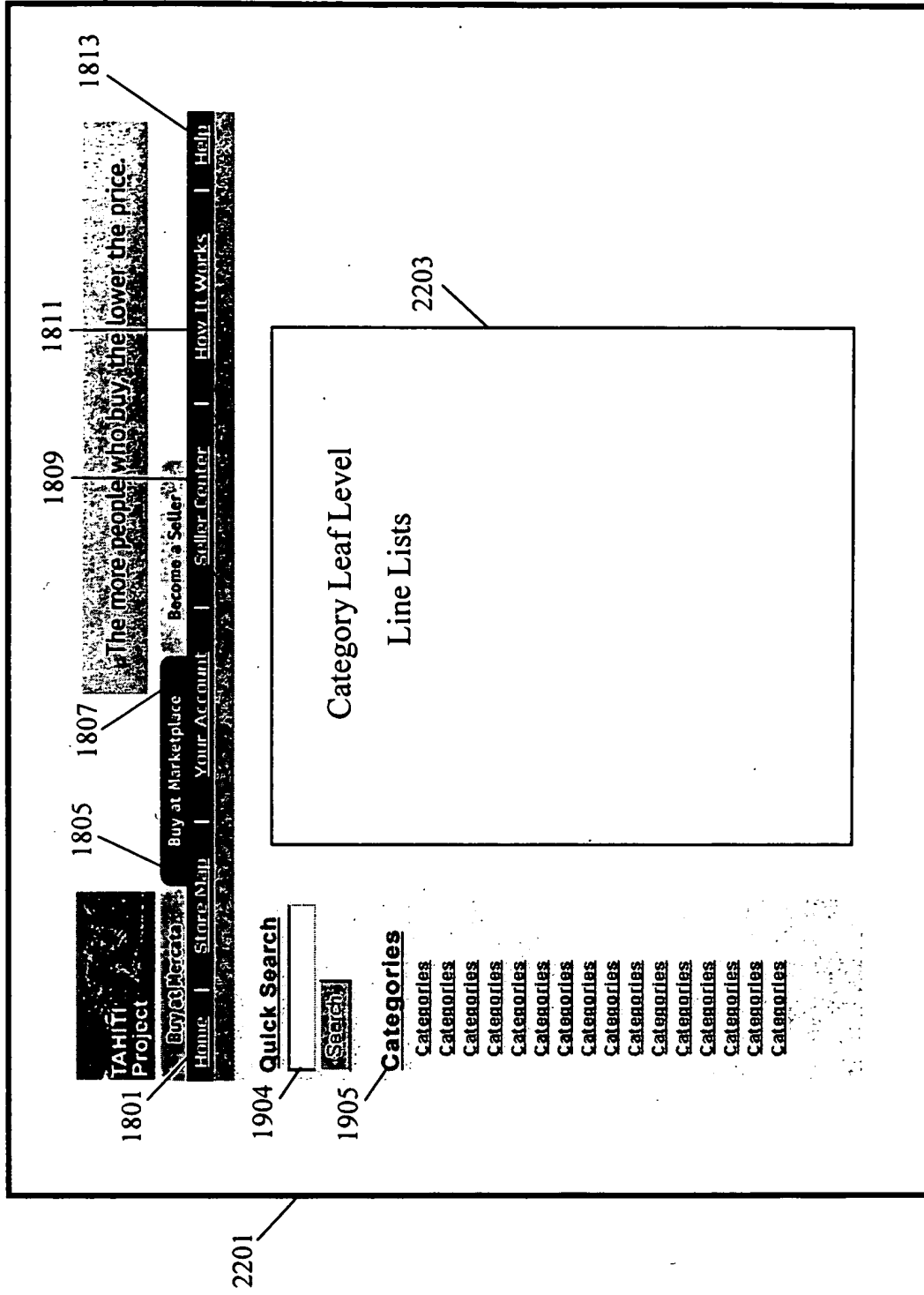


FIG.-22

FIG.-23

1801 TAHITI Project

1805 Buy at Marketplace

1807 Your Account

1809 Seller Center

1811 How It Works

1813 Help

The more people who buy the lower the price

Home | Store Map | Become a Seller

New Account Sign-In

E-mail address:

Password:

Verify Password:

If you forget your password, we'll ask you the following question for verification:

Password hint question:

Password hint answer:

Promotional Emails

☒ Yes, I would like promotional e-mails from ImprovementsCatalog.

By clicking the "I Accept" button below, you are agreeing to accept and abide by these Terms and Conditions and the Privacy Policy.

I Accept

2400

FIG.-24A

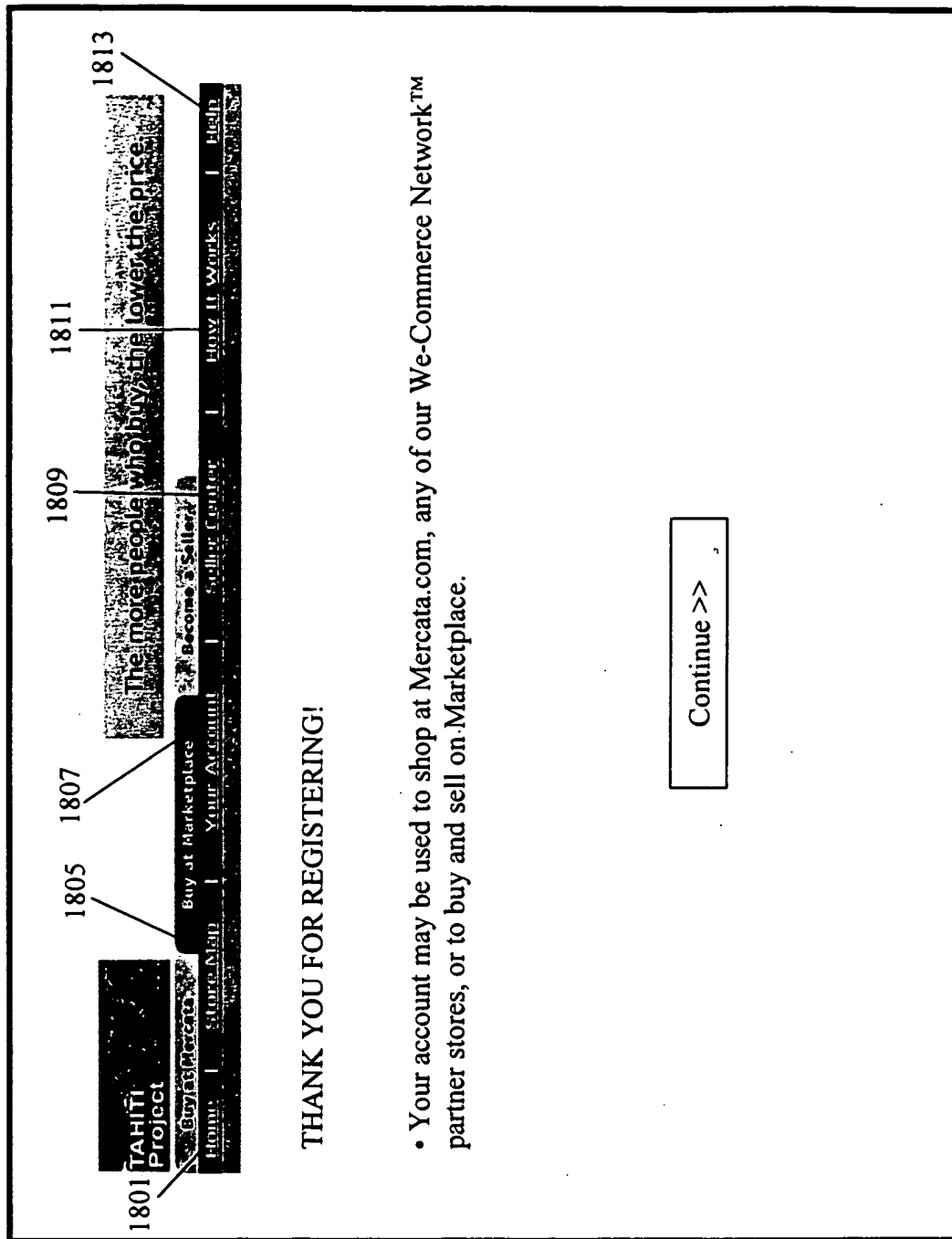


FIG.-24B

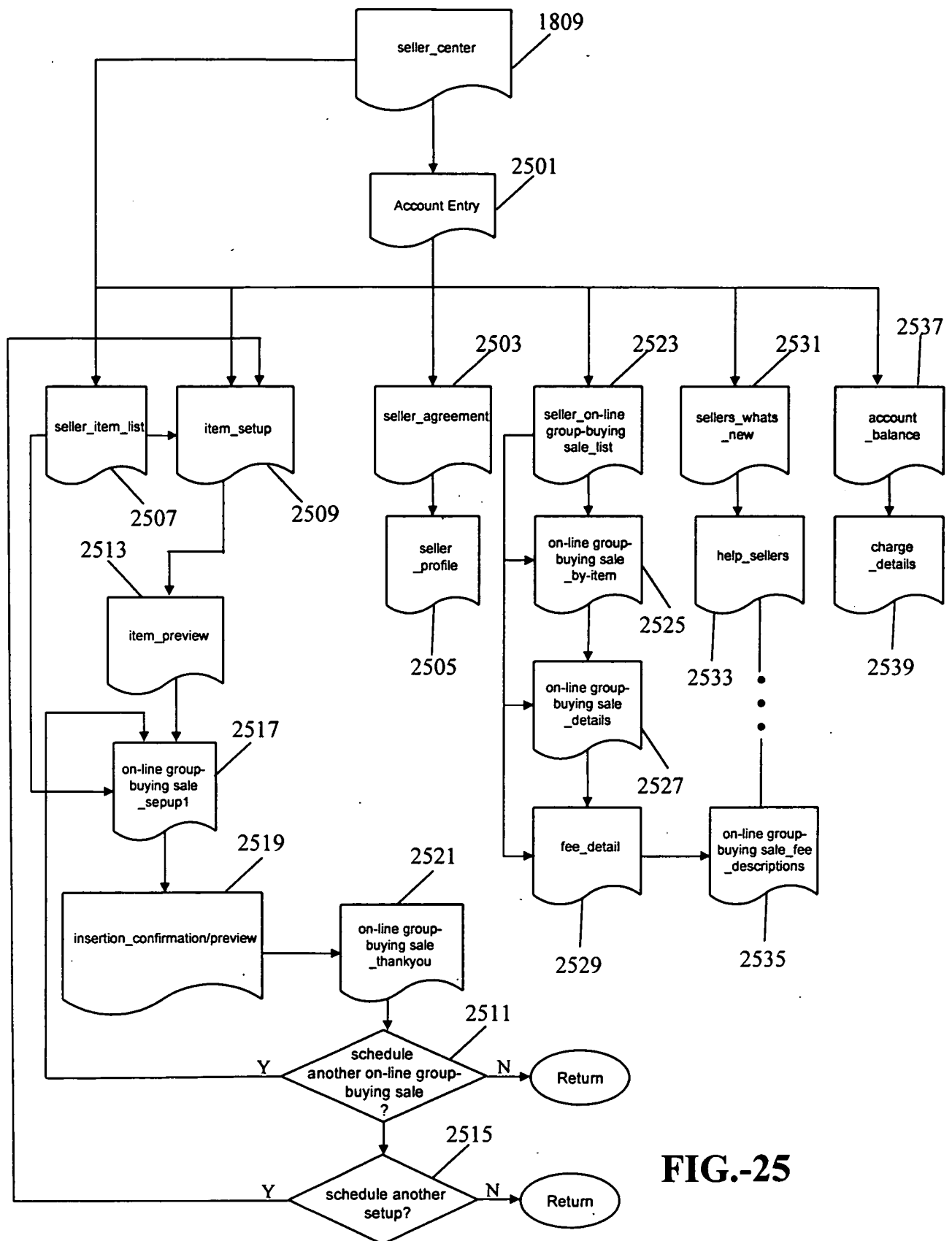
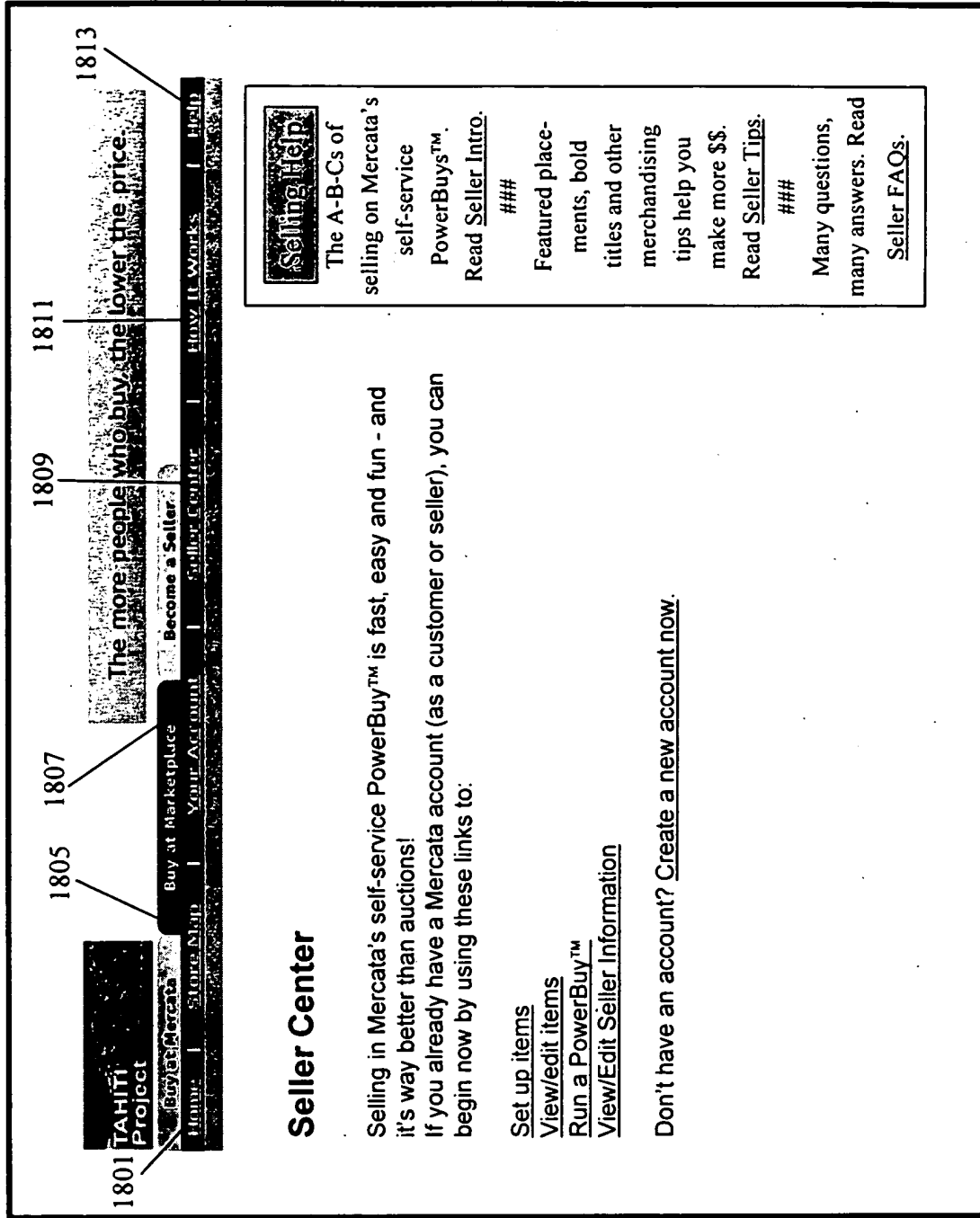


FIG.-25



2601

FIG.-26

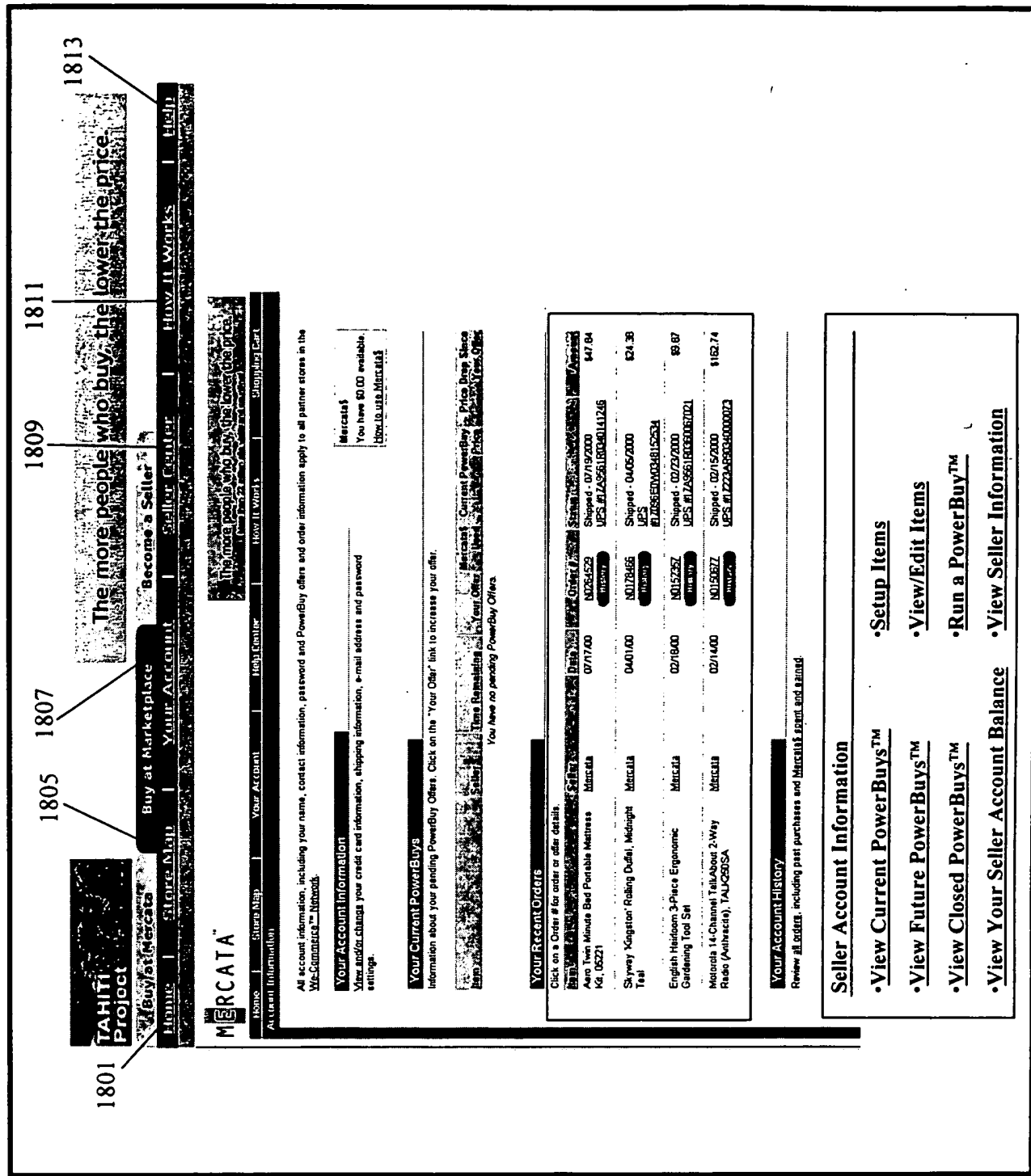
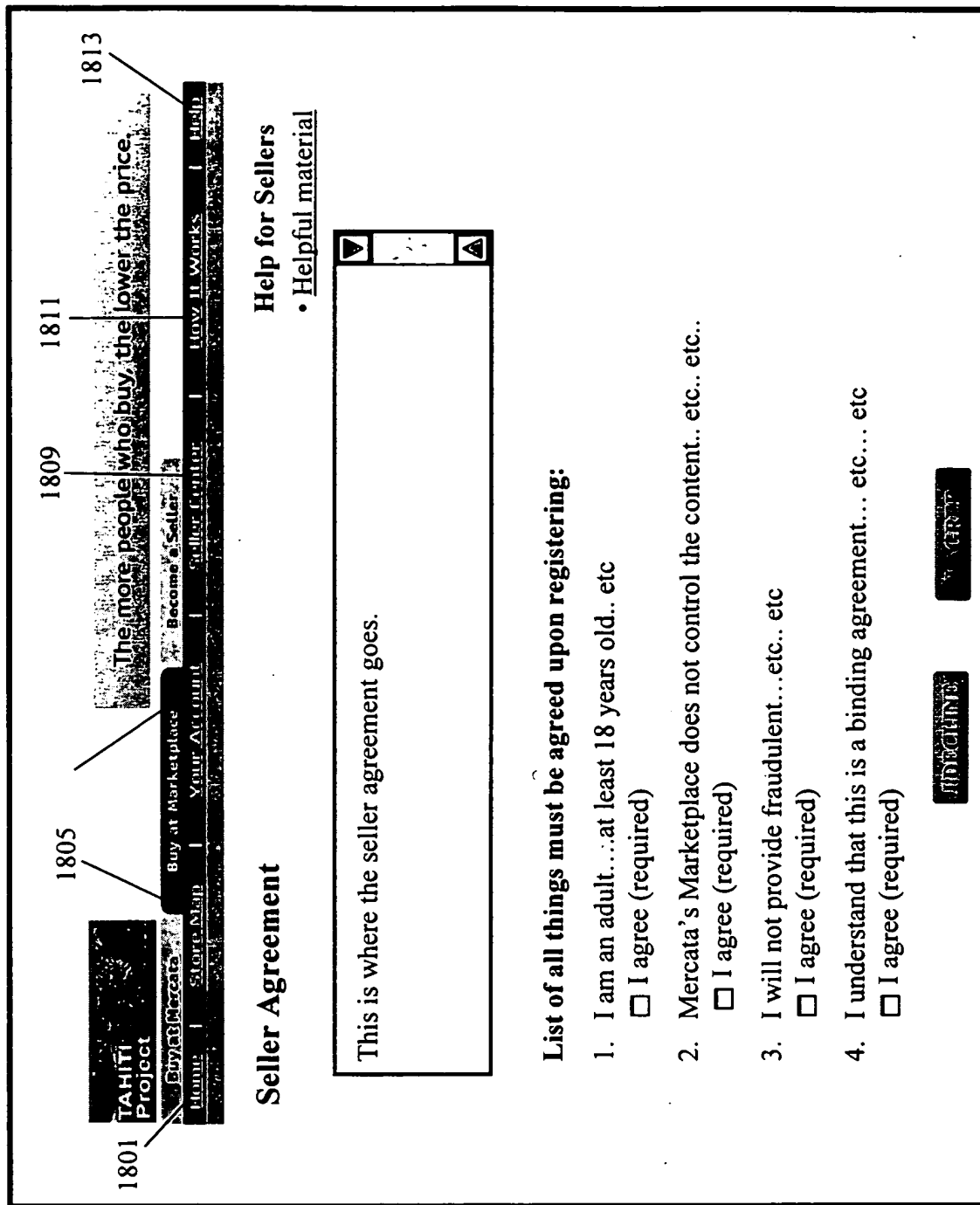


FIG.-27



2801

FIG.-28

1801

TAHITI Project

1805

1807

1809

1811

1813

Buy at Marketplace

Home | Store Map | Your Account | Become a Seller | Seller Center | How It Works | Help

Buy at Marketplace

The more people who buy the lower the price.

These are your current default settings that will appear on your item's detail page.

Seller Information

Seller Name:

Seller Description:

Seller E-mail:

Shipping Options:

Return Policy:

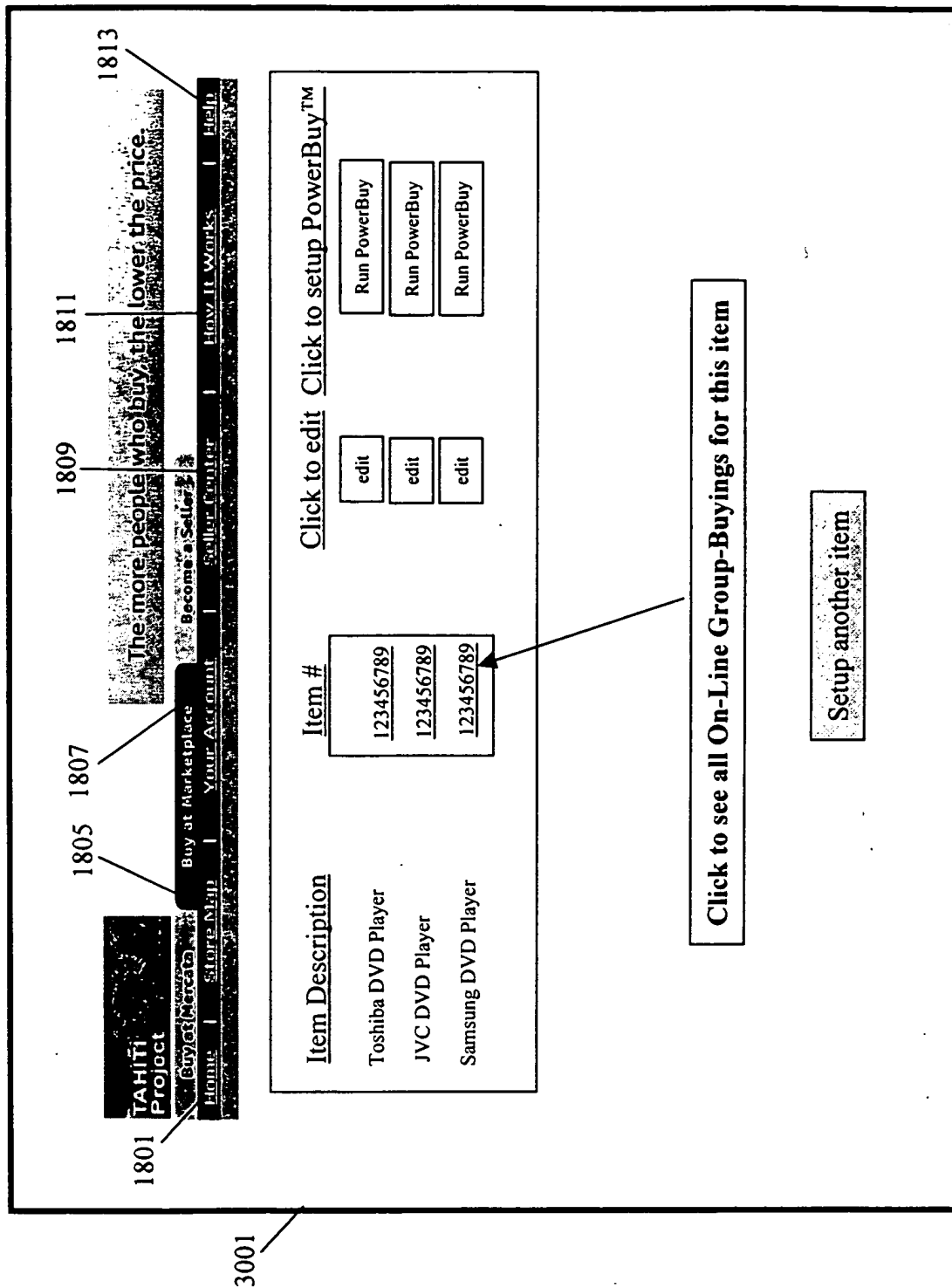
Payment Methods Accepted:

Tax Collected In:

Customer Service Info:

Save changes

FIG.-29



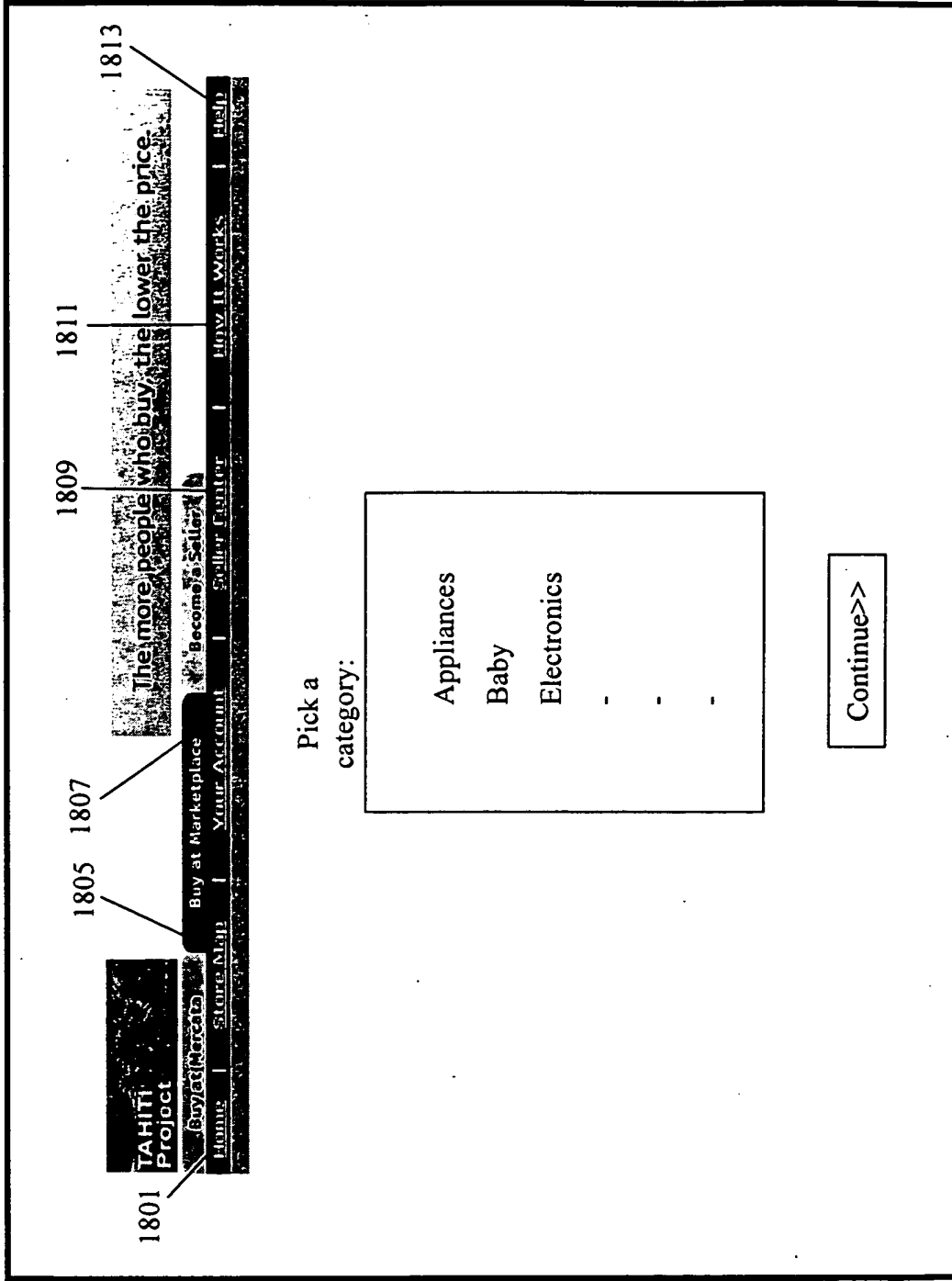


FIG.-31A

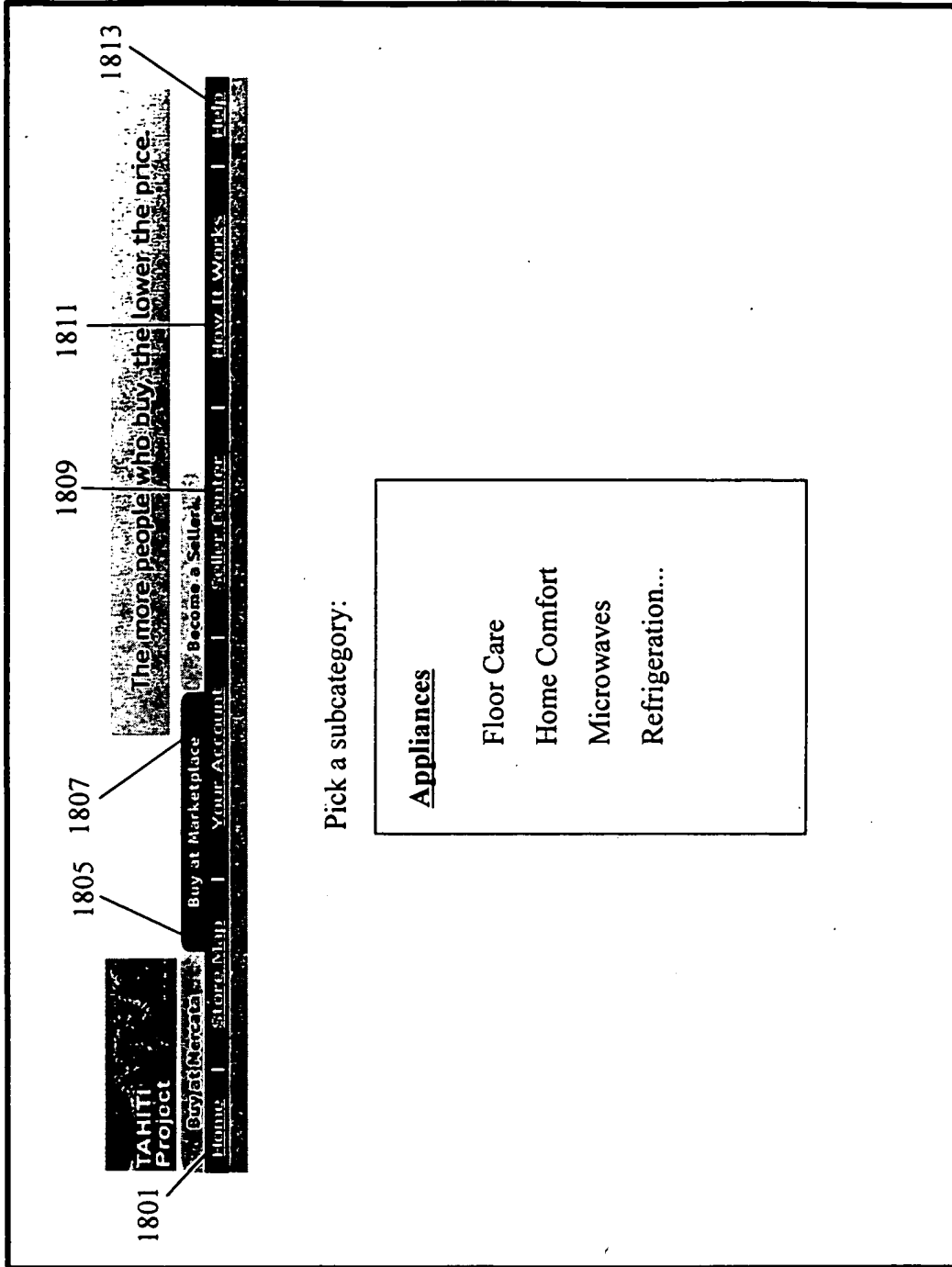


FIG.-31B

1801

TAHITI Project

1805

1807

1809

1811

1813

The more people who buy, the lower the price.

Buy at Mercata

Home | Store Map | Buy at Marketplace

Your Account

Seller Center

How It Works

Help

Product Information

(Read Item Setup Tips)

Product Name:

Pick a category:

Appliances

Baby

Electronics...

Floor Care

Refrigeration...

Convection

Over the Range

Description:

Image URL:

Seller Information & Policies

Your company name and associated policies will appear on this product's detail page.

To make changes or setup your profile, please see Your Account. If your policies deviate for this particular product, please note the changes in the long description above.

Preview item

PowerBuy™ this item

Setup another item

3104

FIG.-31D



FIG.-32

1801

TAHITI Project

Buy at Mercata

1805

Buy at Marketplace

1807

Your Account

1809

Seller Center

1811

How It Works

1813

Help

The more people who buy, the lower the price.

PowerBuy™ Pricing

Start and End Times of PowerBuys™ are at 10PM PST

Product Name:

Item Number:*

Quantity Available:

Beginning Price:

Price Floor:

Max. # of Units per buyer:

Starting Date:

PowerBuy™ Duration:

On-Line Group-Buying Sale Exclusivity

3304

Today, ...

(choices) 1, 3, 5, 7 days

Insertion Options

☐ Bold \$x.xx
☐ Category Feature \$x.xx
☐ Home Page Feature \$x.xx
☐ Hot icon \$x.xx

Recalculate

Continue

3301

FIG.-33

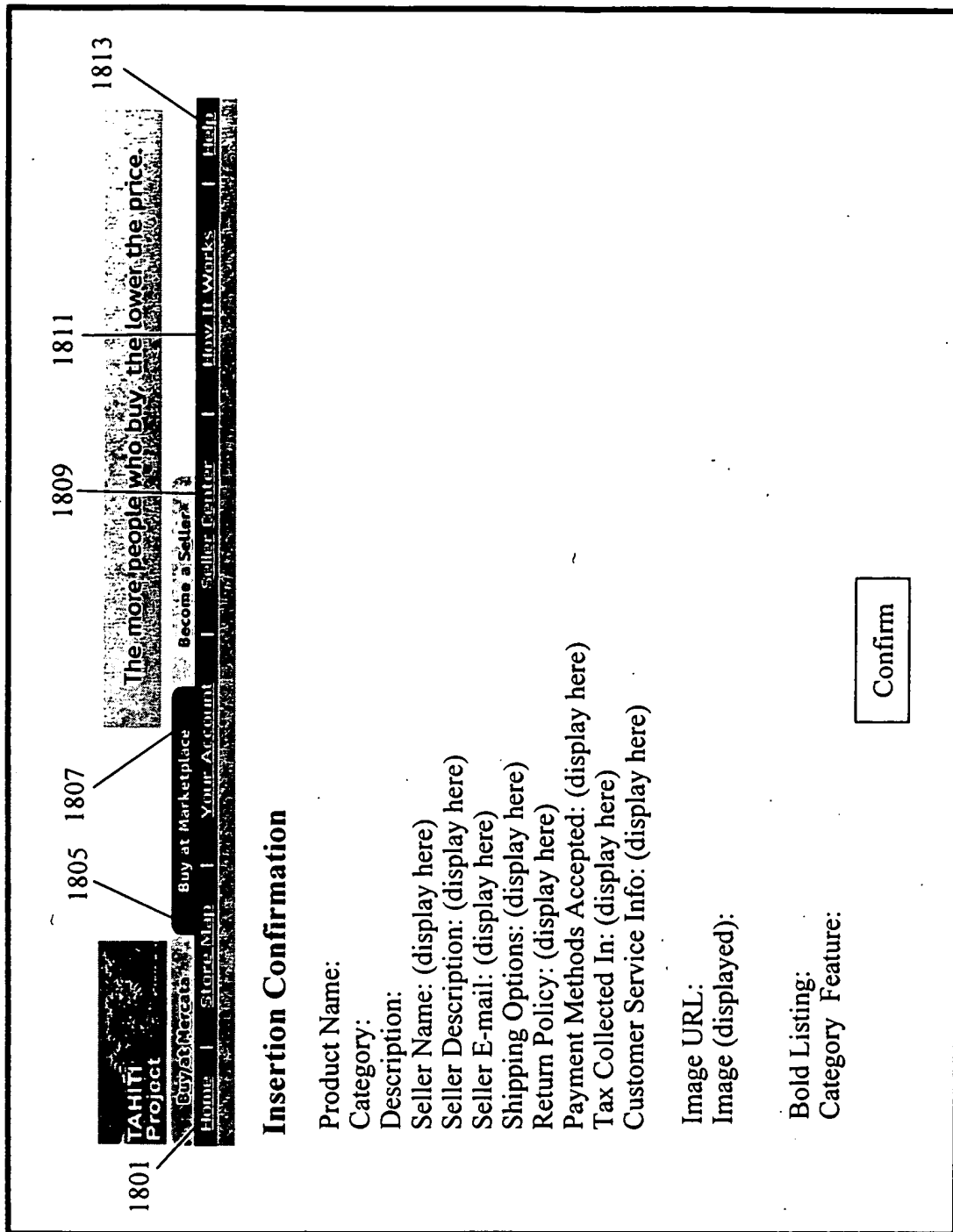


FIG.-34

1801

1805

1807

1809

1811

1813

TAHITI Project

Home

Buy at Marketplace

Store Map

Your Account

Seller Center

How It Works

Help

Buy at Marketplace

Store Map

Your Account

Seller Center

How It Works

Help

The more people who buy the lower the price.

3601

PowerBuy™ List - (Current, Future or Past)

Click the "Fees" link to see a detailed breakdown all of fees associated with a particular PowerBuy™. Click on the icon to the right of the listing to reschedule that PowerBuy™. (**)

Click to see all On-Line Group-Buying Sales for this featured item

Start	End	Item #	Description	Offers			Price	Inv.	Fees
				Committed	Total				
8/28/00	8/30/00	123456789	Samsung DVD Player	5	10		\$194.56	20	\$135.00
8/28/00	8/30/00	123456789	Toshiba DVD Player	57	65		\$550.19	200	\$110.00
8/28/00	8/30/00	987654321	JVC DVD Player	12	40		\$ 65.76	55	\$230.00

Click on description to see more details of this insertion takes seller to On-Line Group-Buying Sale details display 3901 (Fig. 39)

Links to fee_detail display 4100 (Fig. 41)

Links to powerbuy_setup_1 display 3301 (Fig. 33)

FIG.-36

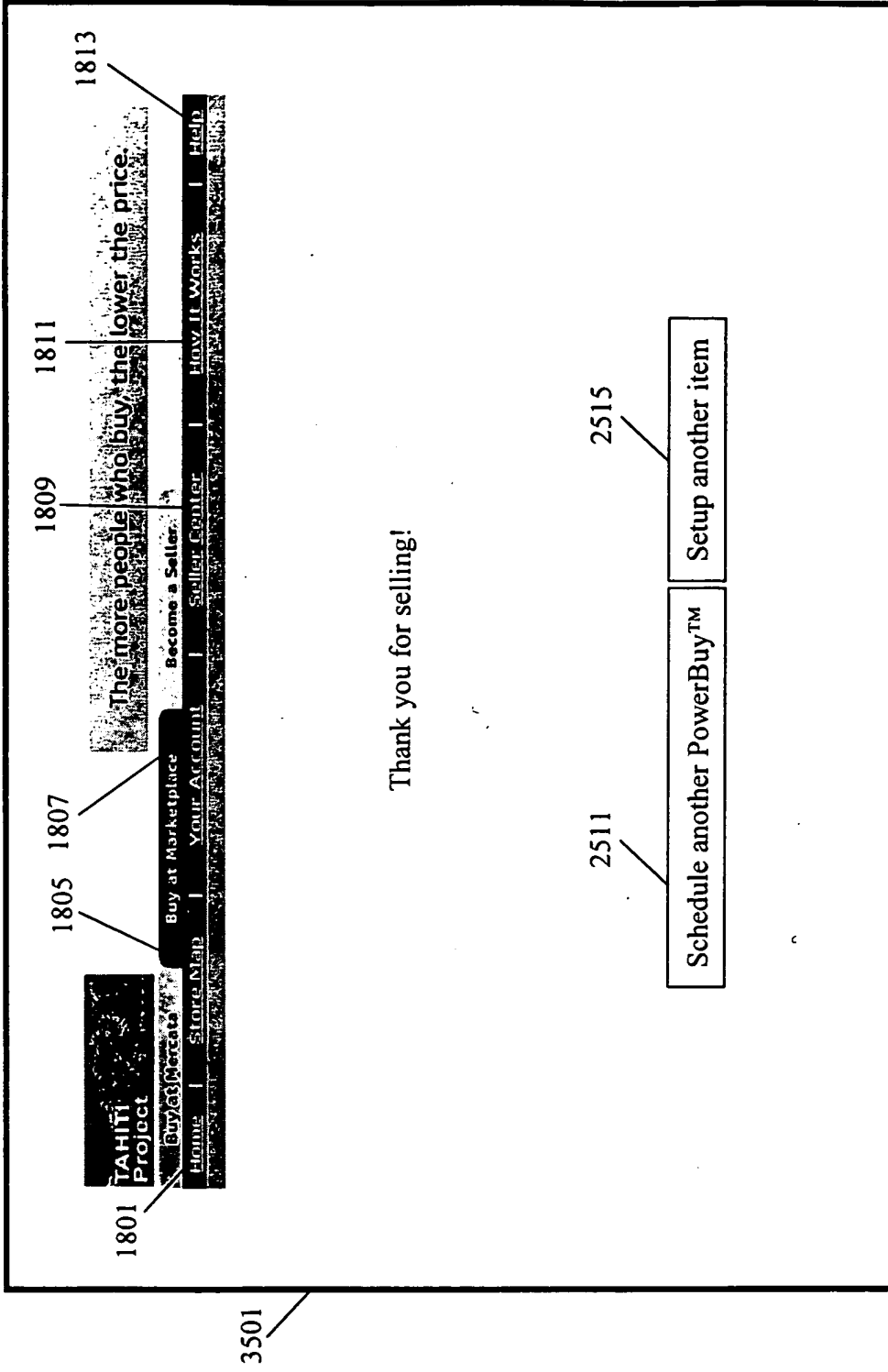


FIG.-35

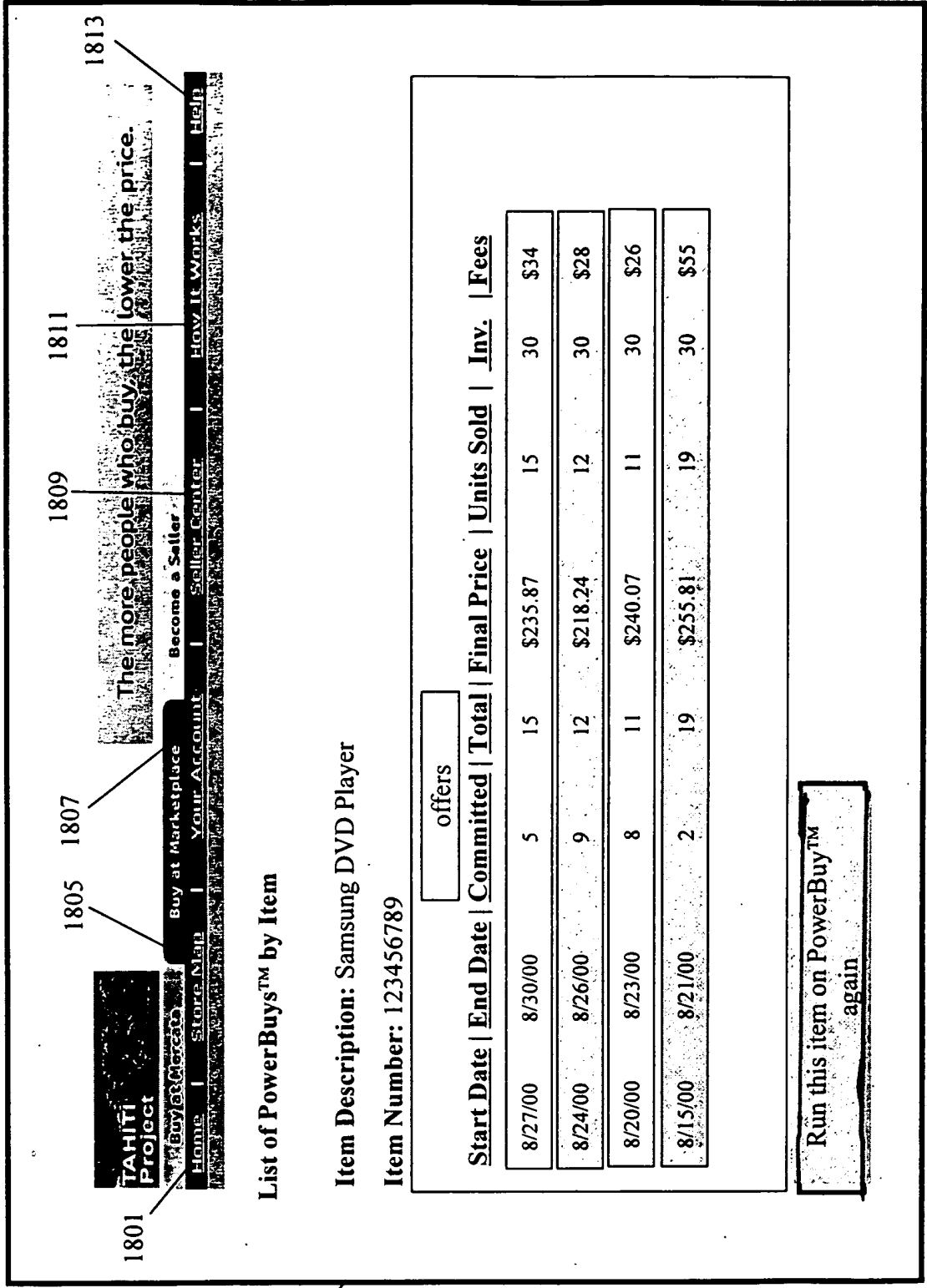


FIG.-37

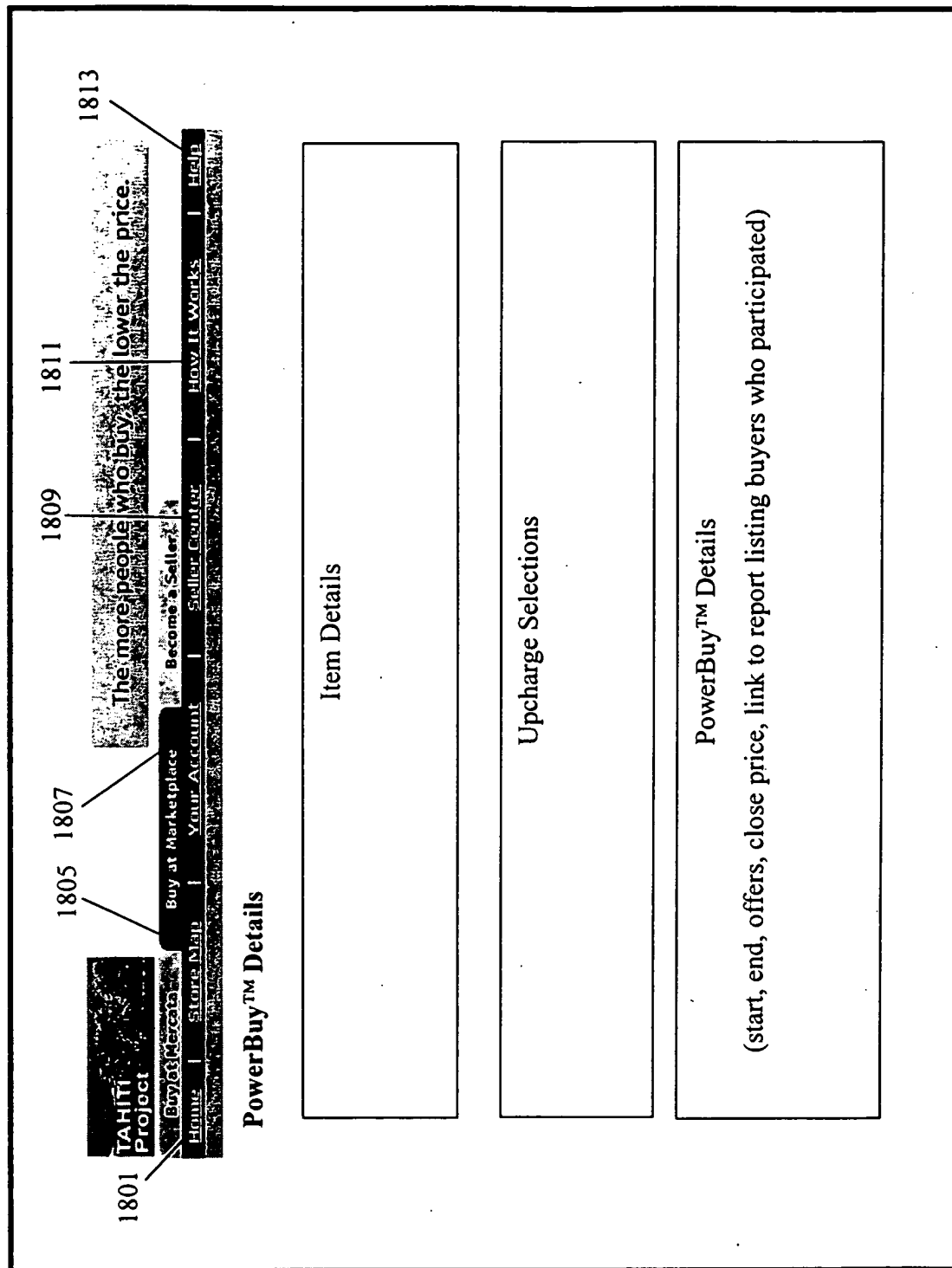
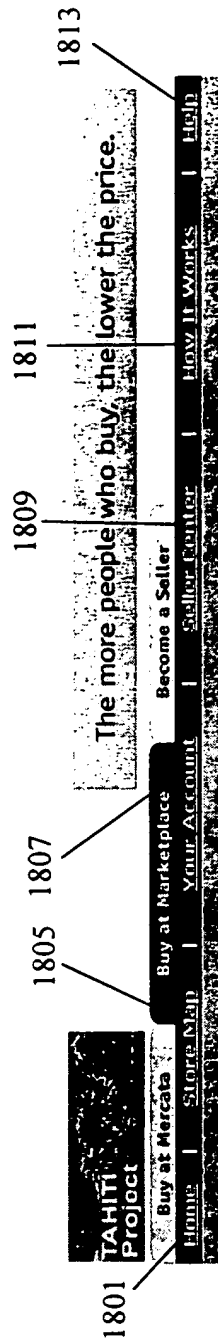


FIG.-38



3901

PowerBuy™ Fee Details

Below is a breakdown of fees associated with the following PowerBuy™ group purchase:

Platinum Nose Hair Clippers w/Carrying Case
Closed 08/21/00. Item # 89097657

Insertion	08/16/00	\$15.00
Special Placement/Gallery	08/16/00	\$10.00
Special Placement/Category	08/16/00	\$8.00
Extra Display/Bold Title	08/16/00	\$4.00
Final Value	08/21/00	\$18.00

(Questions? Read [fee descriptions](#))

Total Charges \$48.25

FIG.-39



Charge Details

Below is a breakdown of charges associated with the following Order #:

N468363

Insertion	08/16/00	\$15.00
Special Placement/Gallery	08/16/00	\$10.00
Special Placement/Category	08/16/00	\$8.00
Extra Display/Bold Title	08/16/00	\$4.00
Final Value	08/21/00	\$18.00
Insertion	08/25/00	\$8.00
Extra Display/Bold Title	08/25/00	<u>\$4.00</u>

(Questions? Read [fee descriptions](#))

Total Charges \$145.36

FIG.-41